THE HEALTH EDUCATION JOURNAL

HISTORY OF HEALTH EDUCATION

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Editorial

In deciding to devote a complete issue to the history of health education, we are following the example of other scientific disciplines which have recognised that history has outgrown its descriptive phase and is now itself a science. The articles which follow show that health education has its roots in culture, religion and social progress. Here is an explanation for the modern pre-occupation of health education with cultural and social anthropology. The techniques with which we are familiar to-day are seen to be a reflection of the processes by which communities have developed, and are therefore exonerated of the charge of empiricism.

Each article in this issue has gone deeply into some important epoch which has made a major contribution to modern thought and practice. The range extends historically from ancient Greece and Rome to contemporary Britain, United States and Russia. The peculiar importance of Renaissance society and of the nineteenth century has not been forgotten, while in what must be recognised as a timeless field the world religions are also represented.

We should like to say that the concept of this special number is due to Dr. John Burton, who planned the initial stages during the last year of his editorship, before taking up his appointment with W.H.O. He was successful in building up a team of distinguished contributors, to whom we must also pay a tribute. We wish to thank Mrs. Burton for her translation of Professor Pazzini's article.

Note.—An article on health education in ancient China, by Dr. Joseph Needham and Miss Lu Gwei-Djen, has unavoidably had to be held over for a later issue.

HEALTH EDUCATION IN CLASSICAL GREECE AND ROME

By SIR JOHN CHARLES, K.C.B., M.D., F.R.C.P.,
Chief Medical Officer, Ministry of Health

HAVE you ever looked at a printed word, letter by letter, and asked it rhetorically " What do you mean ?" Or, making a further etymological excursion, have you sought to find out how the idea such a word contains is expressed in other tongues ? Let us take a very simple and apposite example—our English word " health ". It answers our first question by saying " By health I mean ' wholeness ' and ' haleness ' ".

The German speaking of his health uses the word " Gesundheit " and therein implies a conception of " soundness " which undoubtedly is one of the characteristics of good health.

For the Frenchman " health " is " santé " and through these syllables he looks directly back to the Latin " sanitas "—a word to two of whose English derivatives we assign very different values in the currency of the language : " sanitation ", a matter of drains and the apparatus of inoffensive living ; and " sanity " by which we proclaim the integrity of the mind.

But to the Roman, " sanitas " meant " good health ", and he would trace the word back to a Greek root, which embodied the idea of something whole, unhurt and intact. The Roman was fortunate in having another word for " health ", namely " salus ". For us " salus " has a slightly pedantic and oracular air. We may acknowledge the salubrity of a watering place, but to describe one's state of health as " salubrious " would surely be regarded as Victorian and pompous.

" Sanitas " and " salus " differed for the Romans only in the margins of meaning. " Salus ", although agreeing with its synonym in implying a " sound " or " whole " body, nevertheless had about

it the sense of something saved or preserved. From its root come other words like our own " salvation ".

Turning to the Ancient Greek we find him from the earliest times striving after " hygieia "—the sound, unbroken body, which for its owner was the domicile of health.

Thus " hygieia " came to mean " health "—the constitution without disease or impediment to work, the harmony of all the primordial substances, earth, air, fire and water, which made up the human body. So enthralled was the Greek by this idea, that Hygieia became for him the legendary daughter of Asklepios, the God of Healing, and herself the Goddess of Health.

Seen from this modern age of miraculous medicine, the Ancient Greek, setting aside his intellectual vivacity and curiosity and his athletic prowess and regarding him only as a symbol in vital statistics, seems a fugitive creature, doomed to a brief, hazardous and exciting life. That he died of accidents, malaria, tuberculosis and strange mediterranean fevers, we know. We know, too, that he escaped many of our latter day diseases. But could so tempestuously living and driven a being have any interest in his day-by-day health ?

We can perhaps look for some part of the answer to that question in the writings of the school of Hippocrates at Cos—the so-called *Hippocratic Corpus* of some 70 books or treatises on subjects concerning medicine. They touch on every branch of the art and the science of medicine, and from them one can gauge to a certain extent the real content of contemporary medical knowledge, the techniques of practice and the methods of medical education.

Hippocrates himself was born about 460 B.C., and was at most the author of only a handful of the books in the Corpus. His authority as an investigator, a physician, a teacher and a person of the highest ethical purpose were such that his influence permeates the writings which cluster under his name.

As a member of the clan of the " Asclepiads ", that group of families who had assumed as a hereditary responsibility the care of the sick and the injured, Hippocrates was also concerned to hand on his knowledge and experience to others, whether born into the clan or willing to bind themselves in the terms of the Oath, to treat the sick according to their ability and judgement.

Most of the books of the *Corpus* were undoubtedly written by physicians for the information of other physicians or for the education of students. But to write a book on medicine one did not need, according to Greek ideas, to be either a physician or to

have had any training in the art. That is why certain of the books of the *Corpus* were undoubtedly written by laymen, and why others of medical authorship were read and discussed by the man in the street, as well as by physicians.

Such was particularly the case with the most popular of the Hippocratic books—the *Aphorisms*. Here was set out a great series of *obiter dicta*, mostly clinical, but also touching on topics within the purview and experience of the common man.

Of aphorisms of the clinical order one need only mention such observations as the following :

> In jaundice sclerosis of the liver is bad. (Sec. VI. 42.)
>
> Those who are attacked by tetanus either die in four days, or if they survive, recover. (Sec. V. 6.)
>
> Do not disturb a patient either during or just after a crisis, and try no experiments, neither with purges or other irritants, but leave him alone.

The range of broader interests is shown in such sayings as these :

> Strong drink dispels hunger. (Sec. II. 21.)
>
> Size of body in youth is noble and not unpleasing, in old age it is inconvenient and less desirable than a smaller stature. (Sec. II. 54.)
>
> In athletics a perfect condition that is at its highest pitch is dangerous. Such conditions cannot remain the same . . . and change for the better being impossible, the only possible change is for the worse. (Sec. I. 3.)

The pungent statement of an important fact, the posing of a difficult question, the vivid record of any experience—all this could be summed up in an aphorism and as such was highly acceptable to the inquisitive and argumentative Greek. The *Aphorisms* were probably intended as a textbook for the younger members of the Asclepiad clan, and as a *vade-mecum* for the established practitioner. But undoubtedly some portion of the lore of which they were the vehicle spilled over upon the general company. At least one other book of the *Corpus* was more obviously directed at a lay audience, the relatively short *Regimen in Health*. This work of 2,000 words gives an outline of the main rules for eating and drinking according to the seasonal rhythm and advice for the fat desiring to become thin, and for the thin whose intentions are the opposite. The method of using emetics and enemata is developed at some length. Child care is discussed. " Infants should be washed in warm water for a long time, and be given to drink their wine well diluted and not altogether cold." There are plain instructions for the training

of the athlete, and less rigorous advice governing the walking, working, bathing and clothing of the ordinary man. Lacking perhaps in comprehensiveness the *Regimen in Health* is nevertheless practical and coherent.

The system of Greek education also played a part in the dissemination of knowledge about ways of healthy living. When the child came under instruction, usually between the ages of six and seven, the subjects traditionally taught were literary, including reading, writing and arithmetic. Later, at about the age of 12, music came into the syllabus, and later again, gymnastics. Gymnastic instruction was not limited to the teaching and performance of exercises, though undoubtedly these, and the preparation for the athletic games, constituted a considerable proportion of the toughening process to which the young adolescent was subjected so that he might possess in true Greek fashion both the physical and moral values. Gymnastic exercises have been suggested as having some part in the beginnings of Greek medicine. As taught, they included a great deal of what we would call hygiene, instruction on the care of the body, on bathing and diet, the proper employment of leisure and the beneficent powers of sleep.

It seems fairly clear that amongst the Greeks there was considerable interest in the building up of the healthy body, in maintaining it in good condition, and in the avoidance of the disasters of illness and fever, escape from which was more a matter of good luck than good management. One must also remember that, particularly in the avoidance and treatment of disease, the Asclepiad practitioner had to compete with charlatans, soothsayers and weavers of spells. The Ancient Greek, though intelligent and enquiring, was a superstitious creature.

It would be a mistake to imagine that all the components of health education which have been mentioned were brought together in any systematised form of instruction. There was a considerable body of good practical knowledge forming part of the conversation and argument of the ordinary man. And in this everyday traffic of intercourse and discussion we can rest assured that the subject of healthy living continued to hold its place.

After the Hippocratic era between the fifth and sixth centuries B.C., there is a complete lack of Greek medical literature for over 500 years. Although Greek medicine continued to flourish, particularly in Egypt and to some extent in Athens and in Asia Minor, none of the books of the writers of that half millennium have

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survived. That does not mean that the principles animating Greek medicine were not available to such Romans as were interested to pursue medical studies outside Italy. There is simply no record of the contemporary literature, apart from the *Hippocratic Corpus*, through which they entered the fields of practical medicine.

It is quite clear, moreover, that the Roman attitude to medicine differed greatly from that of the Greeks. From the time of Cato the Censor (B.C. 234-149), and in fact from an earlier period, a knowledge of medicine was regarded as one of the constituents of the education of the Roman country gentleman. It was also part of the expertise of the Roman military officer. For the former it was essential that he should be knowledgeable enough to physic his household with its large army of slaves, and to provide in the farmyard the fundamentals of veterinary medicine. For the latter it was important that he should be able to keep the soldiers under his charge fit and in good health and should be aware of the elements of first aid and military surgery. Sir Clifford Allbutt in his classical work *Greek Medicine in Rome* has discussed this question of domestic medicine. He relates the experience of the agricultural and pastoral provinces of Scotland where the lairds and their wives " doctored and drenched themselves with all sorts of wonderful decoctions mixed according to manuscript collections of recipes handed down from generations beyond memory ". He mentions, too, a personal recollection of a great sportsman, Mr. Meynell, who " to get rid of the gout for a hunting day, would take of his own counsel two strong calomel pills and a teaspoonful of colchicum wine in a glass of hot gin and water, while the only stimulant he took with him in his flask was tincture of rhubarb ".

Cato the Censor, a person of the utmost personal integrity, and a compendium of all the old heroic republican virtues—a man of iron body and soul—was also a writer. His writings took the form of an encyclopaedia, of which only portions have survived. But he was known to have practised medicine under the guidance of a *Commentarium*, or medical cook book, which contained a large range of prescriptions. His great standby was " cabbage " under various forms and prescriptions, together with the appropriate use of wine.

Another of these encyclopaedists who wrote in the early years of the Christian era (circa A.D. 25) was Cornelius Celsus. His treatise *De Medicina* was the first complete compendium on medicine to come down to us since the Hippocratic era. Celsus was not a doctor. He wrote in Latin and like Cato he directed his observations

and advice to the Roman country gentleman and to the military officer. He sets out a pharmacopeia, gives precise rules for dealing with wounds and injuries, and discusses the diagnosis and treatment of many of the major diseases. In great part he follows Hippocrates, though his therapy is more active and less watchful.

One of the most interesting sections of the work is that which deals with the man in health. The first book of the *De Medicina* commences boldly thus :

> " A man in health who is both vigorous and his own master, should be under no obligatory rules, and have no need, either for a medical attendant or for a rubber and anointer. His kind of life should afford him variety ; he should be now in the country, now in town and more often about the farm ; he should sail, hunt, rest sometimes, but more often take exercise ; for whilst inaction weakens the body, work strengthens it ; the former brings on premature old age, the latter prolongs youth."

Then follows guidance on bathing, on diet, on drinking, on exercise —useful examples of which are reading aloud, drill, handball, running, walking. Exercise should stop well short of fatigue. And for the weak, " among whom are a large portion of townspeople, and almost all those fond of letters " greater care was needed.

Enough has been said to indicate the broad lines on which the *De Medicina* was composed. Amongst its other virtues were the fact that it was a well constructed manual, and its Latin was clear and elegant.

There is, however, one great masterpiece of the second century A.D. which had an outstanding influence not only at the time of its appearance, but later in the days of the Renaissance. This was the *Hygieia* or *De Sanitate Tuenda* of Claudius Galen. Galen was born at Pergamon in A.D. 129, and came to live permanently in Rome from A.D. 166. Not only did he dominate Roman medicine in his lifetime, but his spirit brooded over all European medicine for more than a thousand years thereafter. The *Hygieia* was written in Greek not " for any savage or barbarian people, any more than for bears, boars, lions, or any of the other wild beasts, but for Greeks, or for those who, born barbarians by nature, yet emulate the culture of the Greeks ". It links the age of Hippocrates with the second century of the Christian era, and in its worldly wisdom is not alien to our modern ways of thought.

As a text, in the modern English version of Professor Montraville Green, from which I shall be largely quoting, it runs to about

100,000 words. There is much verbiage but a pattern and a purpose run through the whole.

"The science which is concerned with the human body", commences Galen, "has as its largest and foremost subdivisions, Hygiene and Therapeutics—the former to maintain, the latter to modify the conditions of the body. But, since both in importance and time health precedes disease, so we should consider first how health may be preserved and then how one may best cure disease".

From this he proceeds to a definition of health. "The condition in which we do not suffer pain, and are not impeded in the activities of life is what we call health, and if anyone wishes to call it by any other name, well, he will accomplish nothing more than is achieved by those who call life perpetual suffering". Admittedly there are fevers "so slight that we have no perception of them ourselves, and can attend to business, baths, eat, drink and do necessary things". Admittedly there are "weaknesses of function, but strictly speaking they are not a sign of disease. We all see poorly if we compare ourselves with eagles". "Health is a sort of harmony, but the range of health is very wide, and it does not exist with equal absoluteness in all of us. For often when a harp seems well-tuned, another musician tunes it more accurately".

Galen had no doubts as to his fitness to teach the principles of health. "I have served", he says, "the duties of my art, and assisted my friends and kindred and fellow citizens and laboured most of the nights, sometimes for the sake of the sick, but always for the delights of study. But after my 28th year from birth, having persuaded myself that there is a certain art of hygiene, I followed its precepts all my subsequent life, so that I was no longer sick with any disease, except an occasional transient fever. And it is possible for anyone to guard his own health, who has a free life and is willing to apply his mind to it".

Galen applies himself to begin with to the first three septads of life. He insisted that "for the infant growing according to nature, one must preserve the natural state of its body, and provide it with food and drink as moist as possible, and bathe it in sweet waters". Nature had herself planned for children, providing them with mother's milk, and what could be more suitable?

He goes on to describe the creeping, and next the walking, infant, and then the three-year-old child, who may be permitted moderate exercise in a vehicle or a boat, and the seven-year-old child astride a horse for the first time. Coupled with exercise is the practice of bathing, which should be a daily procedure until

the second or even the third year from birth. Thereafter the child should be anointed and rubbed, if not every day, at least every three or four. And when it is time for him to go to school, except after exercise, he could go for the most part unwashed.

The prescription for the second seven years follows very closely the regimen outlined for the younger child. " Let him continue," says Galen, " exercising not excessively, not violently lest his growth be arrested, and washing in warm rather than in cold baths, for he will not yet be able to tolerate the latter without harm. And at this age also let him form his mind by good habits and serious discipline, be modest and obedient."

When we come to review the programme of the youth growing to manhood in his third septad, we find Galen engaged on a tremendous piece of argumentation and dialectic. It is a question of determining whether work, movement and exercise are the same. It would be tedious to elaborate this section of the *Hygieia* further, but Galen in the end concludes that " exercise is no small part of the art of hygiene, and the avoidance of fatigue is no small part of exercise ". For the rest, diet and bathing are more summarily treated ; diet because its fundamental principles have already been discussed, and bathing because Galen was still wary of cold bathing for anyone below the age of 24.

From this point the programme ceases to accommodate itself to each succeeding septad, and instead attention is concentrated on the need of special groups and categories, of which the most important are those human beings with less perfect constitution, and the aged. It will suffice perhaps to deal only with the aged. There are some, according to Galen, who would not worry greatly about them. The poet has written :

> " When he has bathed and eaten let him sleep softly. This is the privilege of age."

But one of Galen's illustrations of his regimen for the aged is given in a history of Antiochus, an eighty-year-old physician. Even at his advanced age Antiochus still continued the gentle exercise of his profession. " At home in the winter he occupied a heated chamber ; in summer he enjoyed the fresh air without a fire. Every day he rose, did his toilet, was massaged, and then set out on foot for the forum, three furlongs distant, visiting his patients on the way. In the forum he ate a frugal breakfast of toasted bread and attic honey. Thereafter for three hours or so he would converse with other citizens or read by himself. Then to the public baths where he was massaged and did the exercises

suitable to his age."

And so home to a lunch which commenced with laxative foods, followed by fish. In the evening he would dine on something softer, such as barley with honey wine, or a game bird with a simple sauce. "Thus caring for himself Antiochus continued until the last, unimpaired in all his senses, and with all his members intact."

There is still much more to be found in the *Hygieia*—a treatise on emaciation and obesity, a chapter on the character of wines, together with many notes on the prophylaxis of individual diseases. Galen's masterpiece fits into the pattern of his period, a period when physical education, life according to simple hygienic rules, and a good deal of self-medication were the recognised practice and modus vivendi. As with the Greeks, and to an even greater extent because of the magnificence of the installations, it is probable that much of this hygienic teaching and physical culture was carried out in the baths. Here, if anywhere, was for the Roman the foundation of what we in these days regard as health education.

References.

1. Clifford Albutt : *Greek Medicine in Rome*. Macmillan, London, 1921.
Celsus : *De Medicina*. Translated by W. G. Spencer. Loeb Classical Library, London, 1935.
Galen : *De Sanitate Tuenda*. Translated by R. Montraville Green. Thomas Springfield, U.S.A. 1951.
Hippocrates : Translated by W. H. S. Jones. Loeb Classical Library, London 1923.

INFLUENCE OF CULTURE AND ART ON MEDICAL KNOWLEDGE IN RENAISSANCE SOCIETY

By ADALBERTO PAZZINI, Director of the Institute of the History of Medicine, University of Rome.
Translated by Isabella Burton

AFTER the historical period commonly accepted as the middle ages thought, and therefore intelligence, seemed to be moved by a new strength which, making it abandon the passive, unquestioning acceptance of other people's opinion and of tradition, caused it to acquire the dignity of personal judgement, free from all dogmatic restraint.

So, by a gradual release from the bonds of schools, dogmatism and traditionalism (scientific, political, social, artistic, philosophical), the new phase following the middle ages—the so-called humanistic-renaissance period—was shaped.

This phase was characterised by a longing which is common to all expression of thought and intelligence : that of creating between the individual and the problem to be solved, whatever it may be, a direct and immediate relationship, without a third element intervening to compel the individual to think according to accepted tradition and not according to his own judgement.

This first step towards the real renaissance is called by the historians " humanism ", the word being derived from the *studia humanitatis* whose roots were in the fourteenth century in the thought and works of Dante, Petrarch and Boccaccio. The term has a literary derivation, but I believe that the attention of historians should be given not to this aspect alone, but to a whole complex of factors ; for in the spiritual activity of man, whatever form it may take, it is impossible to make limitations and barriers.

In fact, if we take a broader view of the period when scholars first began the *studia humanitatis*, we see similar movements of ferment in all other intellectual expression : the formation of the " comuni " (boroughs) ; the first journeys round the world ; neo-platonism giving way to aristotelianism ; the diffusion of averroism ; in art, the end of byzantine traditions and the birth of the new realism following Giotto ; in biology the reactionary movement against Plinio carried out by St. Albert the Great ; in architecture the change from Romanesque to Gothic ; and so on.

In Italy, in this same period, was born the " dolce stil nuovo " in opposition to Latin, while Latin was regaining a classic dignity in contrast to its medieval decadence. This period could be called a " little renaissance " because it brought the first signs of reaction against long-established traditionalism. But it lacked sufficient strength to be a real renaissance.

Then came the humanism of the fifteenth century to strengthen this first antitraditionalistic movement. In the term " humanism ", more than its accepted derivation from *studia humanitatis*, I see the word " homo ", with all man's dignity of thinker and judge, in science and in all other manifestations of his thought.

This new impulse was not only felt by the small group in society who create new forms of art, literature, science, philosophy, but was a new longing which took hold of everybody ; for all of us are more or less aware of the activity of the spirit. All society was awakened, and by a play of give and take, as it were, a new spiritual relationship arose between the creative group and the anonymous mass.

In the renaissance culture became more widely diffused, and in this the invention of printing greatly helped. The hand-written codes of the middle ages were rare and, because of their high price, possessed by a very small number of people. Now the new printed books take over and are within the reach of a far larger public. This diffusion had already begun with the first " calendars ", with pages printed by xylography. Then the loose pages were collected together, and we find, for example, the *Fasciculus medicinae* of G. Ketham. Later came books, properly speaking, such as the *orti sanitatis*, with xylographic drawings, which had a wider public than the real medical books. The " regimina sanitatis " of popular culture (as we would call it to-day) could be much more easily known than had been the handwritten codes in possession of very few.

In this way culture gradually spread, and although it could

not give obvious and important results immediately, it prepared the field for future developments.

In spite of printed matter there was of course the limitation that the large majority of the public could not read. But culture spreads also by word of mouth, and as the number of readers increased, the number of illiterate people who could benefit from the result of their reading increased, too.

Moreover, there was a visual medium : for instance, the pages of the calendars and the primitive xylographs, which could be understood by all, representing skeletons, blood-lettings, astrological and anatomical signs. To-day there are many other means for diffusing culture—newspapers, magazines, digests, shows, television, radio, encyclopaedias. To-day, there is a large field of cultural diffusion ; even if the culture is often presented in a distorted and inaccurate form, too elementary for the learned, and too difficult for the ignorant.

In those days all this did not exist, but there was something that could help in a small and exceptional way : the charlatans and mountebanks who performed in the public squares and, before declaring the imagined virtues of their wares, used to describe as best they could the nature of diseases, the dangers of poisoning, and the power of herbs. We must remember that sometimes among them were clever people with some real knowledge. Ariosto wrote a special " herbal " for one of them, and among the charlatans of the eighteenth century are some who have left their name to history, such as Buonafede Vitali and Boyle (not to be confused with the famous chemist), who expounded the microbic nature of diseases and in whose remedies we can to-day see the principle of antibiotic therapy clearly shown.

I admit that in themselves, one by one, these elements of cultural diffusion of medicine have little value ; but as a whole they are sufficient to create the basis of a cultural state. This has a chance to develop later and also establishes a wider view of the existence of medical arguments and concepts. While printing and reading aloud were diffusing medical culture more widely, the influence of the various regimens increased, (particularly that of Salerno), and the eloquence of the charlatans helped to popularise some good notions among many false ones. With the xylography of the calendars, of posters and of book illustrations, art served the same informative end. Benefiting from these sources, the first germs of medical culture began to flourish and prepare for later and better development.

But the themes of medicine and science influenced particularly a special category of people, outside the medical world. who in return would eventually have great impact on the public mind. These men were the artists, especially visual artists, such as painters and sculptors, rather than poets. Their work could more easily attract the attention of the public, literate or illiterate. In poems such as the *Orlando Furioso*, the *Gerusalemme Liberata*, the *Orlando Innamorato*, topics of medical interest did of course appear, though poetic fantasy was more apt to present a distorted version. Besides, the number of readers was much smaller than the mass who could admire and more easily assimilate the direct visual impact of painting and sculpture.

We generally talk of the reciprocal influence that one expression of the intellect has on another, but we have to clarify this point to avoid false concepts and correlations. We cannot in this case speak of material influence, as in the diffusion of mass culture, but of a simultaneous mode of expression in two aspects of intellectual activity : science and art. This is the argument I want to develop and illustrate.

In the middle ages, visual art had almost exclusively for its subjects sacred themes—pictures of saints, of miracles, of gospel stories, of scenes of martyrdom, and so on. And in this choice of subjects, as well as in the way they were depicted, we find art, like many other manifestations of the mind, showing that obedience to dogma and tradition which pre-eminently characterised the medieval mentality.

Although in such representations the medical observer will find elements of medical interest, we cannot say that medieval painting and sculpture are of great help to the medical historian. I say this, not denying the valuable documentary contribution that medieval art offers to history, but considering its traditionalistic style and contrasting it with the art which flowered in the humanistic-renaissance period.

It is true that even in the medieval pictures of the scenes of miracles, for example, the representation of sick people, of paralytics, of lepers, of those possessed by devils, of cripples, is interesting to medicine. In the same way we find interesting details in the various nativities, resurrections, and scenes of torture. Naturally more material is available in the miniatures of the codes, especially in those concerned with medical or surgical matters, but this is an applied art in which the artist is following a set theme and is not inspired by his free fantasy.

In the following period, however, the artist became free of the cluttering traditions of school and shop, and taking his inspiration direct from nature could fix on canvas and wood a more sincere expression of art. More sincere, because the artist saw and depicted the object as he himself felt it, following his own personal taste and feeling.

Now we have to ask ourselves whether this was the result of the reciprocal influence of the various expressions of thought and intelligence, due to the diffusion of culture ; or whether it was a manifestation in art of the same movement of emancipation which in the sciences, philosophy, literature, politics, sociology, was giving similar results, achieved by apparently quite different means, but all tending towards the same end.

In our case I do not believe that it was really the progress of medicine and the biological sciences that made artists improve in anatomical representation, in painting or sculpting the nude, in depicting people affected by disease, in the more exact delineation of situations of medical interest. While admitting the value of cultural diffusion we are yet uneasy at allowing it all the merit which we are, rather, ready to recognise, in outstanding degree, in the new awakening of the consciousness and freedom of individuals.

Here I take Leonardo da Vinci as the most eloquent example for the marriage of artistic and scientific thought : Leonardo who, admitting himself to be " omo sanza lettere " and choosing not to read scientific writers, was therefore free of cultural influence. Leonardo, who despised the scientists, asserting that he knew more than they because his teacher was experience " che è maestra dei loro maestri ", showed at the same time what marvellous results can derive from the most intimate intercourse of art with science.

Leonardo revealed an interesting new aspect of the anatomical concept which was to change anatomy from the static observation of death to the dynamics of a moving body. For Leonardo the corpse takes on new life. He sees the dynamic body—running, walking, flying, jumping. He sees respiration, circulation, the utterance of voice and song, the mechanism of crying, laughing, smiling.

Leonardo da Vinci created what can be called " physiological mechanics ", establishing the laws of hydraulics by which heart action operates on the flow of the blood, pointing out the levers which move the parts of the skeleton, and the lines of muscular traction. But all this is the application of mechanics or mathematics to biology, for better study of the phenomena of life.

A century later this same concept was to be outlined by Girolamo Fabrizi d'Acquapendente, and later stated more precisely by G. A. Borelli in his work entitled *De motu animalium*.

The same principle was assimilated by William Harvey, studying under Acquapendente at the University of Padua, and this led to his definition of the circulation of the blood, through the solution of a problem of mechanics and mathematics.

But Leonardo da Vinci did more, for he co-ordinated scientific and artistic knowledge, and in creating his masterpieces he applied to art the results of his researches into mechanics. The result of this combination is obvious in the play of the mimic muscles for the various expressions of his faces, in the modelling of the external anatomy of the human body with light and shade, and in his representation of old age following his profound observation in gerontology.

If this result is outstanding in Leonardo, in other less famous artists the combination shows good results. And if we take Leonardo as the supreme example of the unity of scientific and artistic thought, we still have other documentation to show the complete absence of scientific cultural influence on artistic expression. We might, for example, think that the advanced study of anatomy in the renaissance would influence art to represent the human figure much more realistically than in the middle ages. The artists of the fifteenth century had, in the anatomy of their figures, reached the perfection of the magnificent examples of Michaelangelo, Leonardo da Vinci and Raphael when the science of anatomy had yet to feel the decisive innovations of Andrea Vesalio.

The rhinophyma painted by Ghirlandaio, the strabismus represented by Raphael or the figure of the possessed in his Transfiguration, the lepers of Burgkmair, the deformed shown by Brueghel, the wonderful engravings of Dürer, and many other renaissance paintings, engravings and sculptures interesting to medicine, might make us suspect that the artists got their medical notions from books or from conversation. Instead we must conclude that these works are the result of a more free, direct and personal vision and interpretation of nature.

Thus, in its creative act, the art of the sixteenth century escapes any cultural and scientific influence, keeping itself in the position of one of the manifestations of the mind and intelligence which feel the desire to seek other means of expressing the free personality of the individual. And this is the only real reason for the

renaissance motive which reigns in science, art, politics, sociology, philosophy, religion and in all the other forms in which thought can express itself.

That art may well become an instrument in the diffusion, refinement and completion of culture is another aspect of our theme. This does not affect the movement of inspiration, but is one of its secondary results ; and we can quite freely affirm that works of art may become a useful medium for the education of the public, and in our case that they contributed to the formation of medical knowledge in renaissance society.

THE DYNAMIC APPROACH TO HEALTH EDUCATION will be the theme of the Central Council's Summer School to be held at Neuadd Reichel, Bangor, North Wales, from 18th to 28th August, 1959. The School is intended for all whose work involves health teaching—medical officers of health, general medical practitioners, lecturers in training colleges, teachers, public health inspectors, nurses, sister tutors, health education organisers, occupational health nurses, welfare officers—and its object is to improve knowledge and skills in the methods and techniques of modern health teaching. Practical work groups will provide instruction and opportunity for making films, filmstrips, displays, flannelgraphs and posters. Guidance will be given in public speaking and literary craftsmanship, and participants will be free to choose the groups which they join for both discussion and practical work. Specialist lecturers and group leaders will consider the philosophy, content and application of health education in all its aspects. The inclusive fee for the course will be £22 0s. 0d., and full details may be obtained from The Medical Director, Central Council for Health Education, Tavistock House, Tavistock Square, London, W.C.1.

HEALTH EDUCATION IN THE NINETEENTH CENTURY

By FRASER BROCKINGTON, M.A., M.Sc., M.R.C.P., M.D., D.P.H., Professor of Social and Preventive Medicine, University of Manchester

ON the 11th September, 1849, at a meeting in Staffordshire of the Tipton Board of Health, then four days old, Mr. Twist proposed, Mr. Round seconded, and it was unanimously resolved that the following handbill be immediately printed and entrusted to Mr. Mills for distribution :

> Notice
>
> That all persons attacked with looseness of the bowels or cramps should apply immediately to one or other of the undermentioned medical officers :
>
> Mr. Thomas Underhill, Toll End
> Mr. W. L. Underhill, Tipton Green
> Mr. John Davies, Horseley Heath
> Mr. C. E. Joseph, Owen Street
>
> N.B.—Those who are unable to pay for advice and medicines will be relieved gratuitously.[10]

Here was a revolution as great as any of the political explosions which had rent Europe in the preceding year. Messrs. Twist and Round were voicing a new confidence in an age-old weapon designed to educate the people—all the people, not just the upper and middle classes—in matters of health.

Nine years later Miss Florence Nightingale published her *Notes on Nursing* (1858)[11]. "There are five essential points", she said, "in securing the health of houses : 1. Pure air. 2. Pure water. 3. Efficient drainage. 4. Cleanliness. 5. Light. Without these no house can be healthy. And it will be unhealthy just in proportion as they are deficient." Miss Nightingale was not one to mince her words. "Never be afraid of open windows

. . . . To attempt to keep a ward warm at the expense of making the sick repeatedly breathe their own hot, humid, putrescing atmosphere is a certain way to delay recovery or to destroy life. . . . The same laws of health or of nursing, for they are in reality the same, obtain among the well as among the sick . . . The causes of the enormous child mortality are perfectly well known ; they are chiefly want of cleanliness, want of ventilation, careless dieting and clothing, want of whitewashing ; in one word, defective household hygiene." The revolutionary movement is here seen to be extending ; not only by specific consideration for the health of the underprivileged, but by providing also a new instrument of education—the nurse.

But perhaps we should start at the beginning. The age of enlightenment and reason, beginning somewhere about 1750, by preaching the perfectability of man, had introduced a new and vibrant tone of confidence and a new proselytism into the consideration of health. A subject which had been one for the dilettanti, at least since Galen, now suddenly became a burning issue. The new health education movement was international in character ; with everywhere the same appeal to reason coupled with a belief in progress and perfectability—the ascent of man from barbarism to civilisation. First the *vade mecum* on home treatment for the sick, such as the *Domestic Medicine* of Buchan (1769)[3] and Tissot's *Avis au peuple sur la santé* (1762)[16], both of which ran through many editions and were translated into several languages. Then the *codes of health*, such as Faust's *Gesundheitscatechismus* (1794)[4] and Sinclair's *The Code of Health and Longevity* (1816)[13]. In all countries with the western philosophy these erudite works appeared in the bookshops, telling of health as of a prescriptive right which not only might but should everywhere pertain. Johann Peter Frank in his omnibus[6], and Anton Mai in his code based upon it, introduced health education as a component of medical police ; doctors and midwives were to be health educators ; health officers were to instruct children and teachers in the art of maintaining health.

But if enlightenment offered rich rewards in health, it was yet still Utopian—impracticable for any except the upper and middle classes, to whom it was mainly addressed ; and differing little from the pipe dreams of Thomas More in his Utopia (1516), or of John Bellers in his *Essay towards the improvement of Physick* (1714). Frank's and Mai's dreams came to nought. Nor did Southwood Smith's two volumes (1835 and 1837) on *The Philosophy of Health*[15]

yet speak to that wider audience for which Messrs. Twist and Round had spoken. Smith's authorities were of a different order—at least he no longer cited the ancients ; some nine physiologists, four anatomists, a chemist, a zoologist and a pathologist were his inspiration, as he set out to impart " a knowledge of the structure and function of the body " in order to enable the reader " to take rational care of his health ". He was particularly concerned with mothercraft ; for as he said " the author has all along had a deep conviction that the knowledge which it is his desire to convey must be received through the mind of the mother and that of the early educator, before it can have much practical influence on human life, health and happiness. Few, at present, recognise its importance." . . . " Women are the earliest teachers ; they must be nurses ; they can be neither without the risk of doing incalculable mischief unless they have some understanding of the subject about to be treated of." But it was still the well-to-do citizen and the educated mother to whom he was looking ; as also was Herbert Mayo, Senior Surgeon of Middlesex Hospital, who wrote *The Philosophy of Living* (1837)[9] ; and no doubt many others in different European countries and the U.S. Yet the emphasis was already shifting ; indeed it had been so from the beginning, since Tissot hoped, a little piously, that his work might be read by the labouring class. Hodgkin wrote *The Means of Promoting and Preserving Health* (1835)[7] specifically for the artisan ; it was part of a series of publications styled *The Working Man's Companion*, being lectures given to the Mechanics' Institution in Spitalfields some five years before. Health education of the masses had taken another step forward.

Health education needs *purpose* to drive it forward, *knowledge* to make it effective, and *means* to get it across. In all these three the nineteenth century saw great change. Purpose, first set on foot by the spiritual forces released in the Age of Enlightenment, was soon powered by self-interest as the terrible truths of the cholera and industrialisation were grasped. The poor, it seemed, could no longer suffer alone ; sick workers meant poor output ; squalor spread infection to all. Of the increase in knowledge, and in man's power to control his environment, this is no place to discourse. Suffice it to say that we were leaping forward from the darkness of the Middle Ages to the scientific outlook of the modern world : the nature of the physiological functions of the body ; the chemical constituents of food ; statistical variations in mortalities in professions, classes, occupations, age groups and districts ; the

prevention of scurvy and smallpox ; the nature of infection, all provided grist for the new mill. The new exponents of the British theory of social action, unlike Ferriar[5], who could only tell the poor to avoid living in damp cellars, had their handbags well stocked with handbills containing much practical wisdom on " household hygiene ". When Mayo wrote (1837)[9] there was little to be taught about diet except to avoid excess. The essential ingredients, he said, are " fibrin, albumen, gelatin, oil, gluten, sugar, singly or in combination. Different as are these elements, it is probable that the ultimate principle of nutriment is always the same, from whatever source obtained." But when Edward Smith had completed his experiments in physiological chemistry and his nation wide surveys of diets, which made him a Fellow of the Royal Society, his book on family diets for the working classes (1864)[14] was in many ways the equal of a modern textbook—particularly in his appreciation of the value of milk. " Milk . . . should be obtained by every person in the kingdom, whilst in reference to the dietary of very young children it is the essential food upon which life and health depend."

Yet, despite the intensity of the purpose behind the new movement and the vast increase in our understanding of the bases of health, it was in the third requisite, *the means to educate*, that the most striking changes were to take place during the nineteenth century. When the century began, hardly a single effective link with the masses of the people existed ; when it ended the whole fabric of European society was shot through with them like a many-splendoured garment. It was the Mr. Millses who were symbolic of the new health education age—those who were " intrusted with distribution ".[10]

> " Several cases of contagion, attended with fatal consequences, having been occasioned in this City (Exeter), by the neglect of destroying, or immediately purifying, the clothes and bedding of persons dying of the Cholera :—The Board of Health do hereby require all persons to assist the officers appointed by them . . . ."
>
> Signed, Henry Blackall, Deputy Chairman,
> 21st August, 1832[12].

The Henry Blackalls, with their officers, were also fresh upon the European scene ; their handbills were directed at the whole population with emphasis upon the poor. The Boards of Health which they served, constituted by Orders of His Britannic Majesty's Privy Council, were of short duration ; they lasted only so long

as the cholera theatened. But, within two decades, they were followed by Chadwick's Local Boards, a much more substantial creation, in which not only the Twists and Rounds could play their role of enlightenment ; but also the medical officer of health. " I have the honour to lay before you a statement of the sanitary condition of the Borough of Darlington for the year which has just expired (1852) ", wrote one of the pioneer M.Os.H., Dr. Stephen Piper of Darlington . . . . " I should ill discharge the duties of a responsible office did I not urge upon you Gentlemen, *who are placed in Authority* (my italics), to do all in your power to prevent the occurrence of such scenes as these ", he went on to say with his customary eloquence, " and I again respectfully reiterate that a committee of your Board should occasionally visit the Dwellings of the poorer classes "[17]. Not only the poor themselves, but "those in authority" over them have to be educated in health matters.

After 1834 the poor law medical officers appointed to every " Union " throughout the United Kingdom began to communicate not only with the poor, but also with the Boards of Guardians who employed them. The influence of this little regarded group of medical men throughout the nineteenth century can be seen in its true light in Hodgkinson's critical analysis[8]. By the middle of the century Miss Nightingale's nurses, imbued with the philosophy of *Notes on Nursing*, and full of practical wisdom, began to dispense advice in hospital and home. Largely because of their influence, open windows became the battle cry of the new professionals and their voluntary supporters. It was soon to be heard on every English lip. Let us pause a moment to think of this revolution in living in Britain to which the middle of the last century gave rise, as we face dissentients to the open window in the trains, nursing homes and restaurants of the continent of Europe.

There was a growing army of health educators. First and foremost, the physician who was spreading rapidly throughout the whole countryside of Europe. Tissot had written his advice to the people, presented to the Council of Health of the Republic of Berne (1762)[16], largely because the sick of the countryside were so lamentably neglected. Medical care for them was non-existent. Within a century, however, doctors in increasing numbers and with better education and training, became generally available ; the streets, greens, heaths and ends everywhere had their doctors[10]. Medical men in varying capacities, nurses, midwives, sanitarians were supported by voluntary workers. Some at least of the many thousands of ladies who gave their leisure to " slumming " were

formed into associations, such as the Sanitary Association of Manchester and Salford (1852), inspired by Thomas Turner, surgeon to the Royal Infirmary, Manchester[1]. Associations of citizens intent on public enlightenment grew up like mushrooms : the London Statistical Society (1839), the Health of Towns Association (1842), the Epidemiological Society (1850), the Sanitary Institute (1876) ; some were to last only long enough for the abuse to which they called attention to disappear ; others were to endure.

As the nineteenth century advanced the three requirements for health education—belief in its worth, the message itself and the means to propagate it—increased in stature ; but always overshadowed by the great sanitary movement, which, particularly in the United Kingdom, occupied the forefront of the scene. The great place which health education was to occupy in the twentieth century public health movement had not yet been realised. But the shadow which it cast before could be seen by the discerning. The first special course of training for the health visitor was given in Buckinghamshire in 1892 ; and the first public appointments were made of the " health missioner " (as she was then called), of whom it was said (1903) that she was " not only an important, but almost the only means of further improving the health of the people ".[1] During the closing years of the century the first of the great pioneers of personal hygiene—Robert Philip, Pierre Budin, Florence Nightingale—began to focus attention upon the individual and the need to give him or her specific education as an essential element in any campaign to preserve the health of the vulnerable groups. But this is the story of the twentieth century.

References

[1]Brockington, C. F. *The Health of the Community*. London, 1954.
[2]Brockington, C. F. *Medical Officers of Health 1848-55*. London, 1957.
[3]Buchan, W. *Domestic Medicine : or the Family Physician*. 1769.
[4]Faust, B. C. *Gesundheitscatechismus*. Hanover, 1794.
[5]Ferriar, J. Quoted by Rosen, G. *A History of Public Health*. New York, 1958.
[6]Frank, J. P. *System einer vollständigen medicinischen Polizey*, 1779-1827.
[7]Hodgkin, T. *The Means of Promoting and Preserving Health*. London, 1835.
[8]Hodgkinson, R. G. " Poor Law Medical Officers of England ". *J. Hist. Med.*
[9]Mayo, H. *The Philosophy of Living*. London, 1838.
[10]Minutes of Tipton Local Board of Health (11.9.1849). Personal communication Dr. W. A. McLennan.
[11]Nightingale, F. *Notes on Nursing*. London, 1858.
[12]Shapter, T. *The History of the Cholera in Exeter*. London, 1832.
[13]Sinclair, J. *The Code of Health and Longevity*. London, 1816.
[14]Smith, E. *A Practical Dietary for Families, Schools and the Working Classes*. London, 1864.
[15]Smith, S. *The Philosophy of Health* (two vols.) London, 1835, 1837.
[16]Tissot, S. A. *Avis au peuple sur la santé*. Lyons, 1762.
[17]Unpublished Report of Stephen Piper to Darlington Local Board of Health, 1852.

THE CENTRAL COUNCIL FOR HEALTH EDUCATION

The First Twenty-Five Years: 1927-52

By SIR ALLEN DALEY, M.D., LL.D., F.R.C.P.,
Vice-President.

THOSE who took an active part in the foundation of the Central Council for Health Education and who know its early history at first hand are, alas, now few in number. As one of them, I have been invited to tell the story, particularly as most of the early documents were destroyed during the war.

The need for health education

I began my public health career as M.O.H. of the County Borough of Bootle in June, 1911. During my nine years there, many of the services which are now commonplace were started. They included infant welfare, ante-natal, school and venereal disease clinics and a tuberculosis dispensary. There was much poverty and malnutrition. Infectious diseases such as scarlet fever, diphtheria, whooping cough and gastro-enteritis were prevalent and often fatal. Smallpox was frequently introduced.

I soon realised that unless I had the co-operation of the public in my efforts to improve the health of the community, success would be unlikely, and in any case long delayed. There was no point in providing clinics of various kinds unless those for whom they were intended actually used them. It was necessary to inform the public why they had been started and for what purpose. Ignorance, a certain amount of passive resistance and some open hostility had to be overcome. Delay in seeking treatment for the acute infections and for tuberculosis caused many avoidable deaths. Poverty was aggravated by lack of knowledge of the best

way to lay out a small wage.

Health visitors had been appointed in many areas and carried the message of how to care for infants from door to door. They were primarily health educators. But there were not enough of them. Something more was needed.

We got the local press to take an interest in news items about health. I gave lectures on health topics to any gathering which would invite me. We produced leaflets in an amateurish way.

Many others were thinking on the same lines. Forty years before there had been a series of well-attended public lectures in Edinburgh on health topics. The Middlesex Hospital had produced a series of leaflets on the early signs and symptoms of cancer and other diseases. Dr. Young, Health Commissioner of Chicago, was issuing a well illustrated monthly health bulletin. The Royal Sanitary Institute (now the Royal Society of Health) under the energetic leadership of Dr. Bostock Hill, M.O.H., Warwickshire, advocated an annual " health week ". The National Baby Week Council was started.

The stage seemed to be set for a move forward. In 1919, at a sessional meeting held in Bootle of the Royal Sanitary Institute, Sir Lewis Beard, Town Clerk of Blackburn, Chairman of the Law Committee of the Association of Municipal Corporations, and very influential in local government circles, took part in the proceedings. He said no great advance would be made in the improvement of the public health until the general public received clear advice on what they themselves might do to maintain their health and that of their families.

Health education in a Lancashire town

In 1920 I became M.O.H. of Blackburn and, with the unfailing and powerful support of the Town Clerk, put these ideas into practice.

The people of the town were most receptive—in fact enthusiastic—and were, like Oliver Twist, always asking for more.

Lectures under the auspices of the health department attracted audiences of up to 3,000. Children in the schools designed health posters. We and the teachers wrote, and the children performed, health plays. Our most ambitious effort was a large-scale health exhibition and health week. We borrowed exhibits from the various national voluntary societies : my staff prepared exhibits to illustrate what the health department was doing. It was a great success and was attended by over 30,000.

It was at this point that I conceived the idea that there ought to be a central organisation for health education. Our local exhibits, on the preparation of which we had spent many months, had been packed away in the cellar, as a similar exhibition was unlikely to be successful if repeated oftener than every two or three years. I realised that the preparation of posters and leaflets was highly skilled and a matter for experts : not a spare time activity for a busy M.O.H.

Few health departments had available the services of a skilled artist. A central body could get the best artists and the best professional advice on the content and presentation of leaflets and posters. They would be better and cheaper than any produced locally. Similarly they could provide exhibits for exhibitions which could be passed round and be in constant use. Such an organisation could produce a readable monthly health bulletin. Most of it would consist of articles, well illustrated, on health suitable for all communities, but provision could be made for local matter such as addresses and times of clinics on the insides of the cover. A central body would produce health films and pass judgment on films produced by other bodies. It would be a place where ideas on health education could be pooled and from which advice on methods of health education could be obtained. It would provide a panel of lecturers who really could lecture and hold an audience. It would be a body which would, by congresses and otherwise, emphasise the importance of health education. Finally, it would work in close co-operation with the Ministry of Health and other government departments whenever national publicity was needed.

With these ideas simmering in my mind, I prepared a paper entitled " The Organisation of Propaganda in the Interests of Public Health " and read it at a general meeting of the Society of Medical Officers of Health in London on March 14, 1924. The main emphasis was on the need for a central organisation. There was a good discussion and the paper and discussion were published in full in the September, 1924, issue of *Public Health*. Considerable interest was aroused, but it was pointed out that those local authorities whose accounts were examined by the district auditors might find themselves in difficulty if they spent public money on health education, as there did not appear to be any specific legal sanction for such expenditure.

A preliminary step, therefore, was to obtain such sanction. The Society sent a deputation to discuss the matter with the Minister

of Health, Mr. Neville Chamberlain. It was introduced by Dr. John Wheatley, C.M.O.H., Shropshire, and was received with the greatest sympathy. In the following year a bill which became the Public Health Act, 1925, was introduced into Parliament. Section 67 enacted that " Any local authority or County Council may arrange for the publication within their area of information on questions relating to health or disease, and for the delivery of lectures and the display of pictures in which such subjects are dealt with, and may defray the whole or a portion of the expenses incurred for any of the purposes of the section ".

The Central Council for Health Education established

The way was now clear. The Society approached the associations of local authorities and after preliminary discussions the inaugural meeting of the Central Council for Health Education was held on September 26th, 1927, at the office of the Society, 1 Upper Montague Street, Bedford Square. The first chairman was Professor H. R. Kenwood, C.M.G., joint author of the famous public health textbook " Parkes and Kenwood ", Professor of Hygiene and Public Health at University College, London, and M.O.H., Bedfordshire. Among those present to give it a good send off were Drs. George Buchan, J. Cates, J. Fenton, Bostock Hill, J. Wheatley and myself, all nominated by the Society of Medical Officers of Health. There were, also, Mr. I. Whitehead, and Mr. H. E. Smith, Town Clerk of Wimbledon, nominated by the associations of local authorities, and Mr. Henry Lesser, nominated by the London Insurance Committee. Other members of the first council included Sir Lewis Beard, Dr. H. B. Brackenbury, Lord Cozens-Hardy, Dr. W. W. Jameson and Dr. Lyster. Mr. G. S. Elliston was appointed general secretary, with Mr. T. Crew as organising secretary.

So my dream had come true. A central body on health education had certainly started, but would it survive ?

It seemed to me that success would depend on whether the new council would have the confidence of the local authorities and the Ministry of Health and whether we could find enough money during the first few years to pay staff and to sink capital in the production of publicity material. When our " business " was well established the sale of our products should keep us going.

On the question of confidence, we were sponsored by the Society of Medical Officers of Health and by the associations of local authorities, by insurance committees under the National Health

Insurance Act, and by friendly societies. We included among our members several prominent medical officers of health. We had Dr. Brackenbury, soon to become Sir Henry Brackenbury, the leader of the British Medical Association, though he was there as representative of the Association of Education Committees. Dr. Jameson, eventually to become Sir Wilson Jameson, G.B.E., K.C.B., Chief Medical Officer of the Ministry of Health, and always a staunch friend of the council, was there as M.O.H., Hornsey. This early association with him was to prove invaluable in later years.

We were fortunate in our secretaries—both part time. Mr. G. S. Elliston was, also, the part-time secretary of the Society of Medical Officers of Health. His career was then opening out. Later as Sir George Elliston, M.P., he was Chief Commoner of the City of London and Chairman of their public health committee. Tom Crew was an enthusiast for health education. His main work was clerk of the Leicestershire Insurance Committee. He devoted many long hours of what would otherwise have been leisure to the work of the council.

We felt, therefore, that we ought to command confidence and from the very first the Ministry of Health and other government departments sent " observers " to our meetings.

Money was, however, a different story. We did not know how many local authorities would support us financially, either by contributing to our initial and overhead expenses or by buying our products when we were in a position to produce them.

There were many voluntary organisations already well established and providing publicity material in their own field, such as child welfare, tuberculosis and " health and cleanliness ". Some medical officers of health might prefer to continue to buy from these organisations or to produce their own material.

Our first circular letter to local authorities produced sufficient response to justify optimism, but lack of adequate finance has been a constant nightmare.

Growing up

The first few years were occupied in building up the organisation. It was a slow process. *Better Health* appeared under the editorship of Mr. George Elliston and by April, 1929, it had a circulation of 200,000.

In May, 1929, a 96-page booklet was published. It gave particulars of all the publicity material available : some provided

by the Central Council itself : some by the 25 voluntary organisations engaged in health work.

Annual congresses on health education were started. Lord Riddell, the newspaper proprietor, participated in the one held in 1930.

I was in Hull until 1929 and found it difficult to attend meetings. The early records and even the annual reports until that for 1934-5 have disappeared, so I have had nothing with which to refresh my memory.

In 1930, Dr. Bostock Hill succeeded Professor Kenwood as chairman and in the same year Mr. Lewis Elliston succeeded his father as part-time secretary.

In 1934, Dr. James Fenton became chairman and Dr. Maitland Radford, honorary treasurer. In the following year the financial position seemed to be assured and Mr. Paul Scott Rankine was appointed as the first whole-time secretary. Mr. Lewis Elliston was appointed " liaison officer " and so maintained a close association with the Society of Medical Officers of Health, of which he was secretary.

Mr. Rankine remained with the council until the outbreak of the war. He was keen and energetic and subsequently attained eminence in international journalism.

The seventh annual congress, held in November 1934, was attended by over 200. It was presided over by Sir George Newman. The speakers included Sir Francis Fremantle, Dr. Alfred Cox, secretary of the British Medical Association, and Dr. (later Sir William) Savage. Much attention was given throughout the year to posters, health exhibits and advice on how to run health weeks. Sir Kingsley Wood, on taking up office as Minister of Health, sent a warm letter of appreciation of the council's work. In 1937, an elaborate Health Education Year Book was published. Mr. George North, now Sir George North, and until recently the Registrar General, was one of the Ministry of Health " observers " and I well remember his diligent attendance at all the meetings and the care he took to inform the Minister of our activities.

In that year, Dr. Charles Hill, deputy secretary of the British Medical Association, joined the Council and proved a great driving force. He later became secretary of the association. During the war, as the " Radio Doctor " his short weekly addresses on health had a listening audience of 4,000,000. He was chairman of the council from 1941-4, and was then appointed a vice-president. After the war he became a member of Parliament, Parliamentary

Secretary of the Ministry of Food, later Her Majesty's Postmaster General, and now Chancellor of the Duchy of Lancaster.

A feature of 1937 was a campaign, suggested by the Minister of Health, to encourage a wider use of the health services. It was inaugurated on September 30, by a reception, attended by 1,400 guests representative of government departments, local authorities, and medical and health organisations. It was held at the London School of Hygiene and Tropical Medicine and was addressed by the Prime Minister, Mr. Neville Chamberlain. The campaign was supported by leading articles in the principal newspapers and *The Times* issued a special supplement. Lord Horder presided at the Ninth Annual Health Education Congress.

Mr. Rankine organised on behalf of the Surrey County Council a series of " health days " covering, during the winter of 1937-8, 16 separate centres.

They were highly successful, but they cost the council much more than had been expected when the financial terms had been agreed with the County Council, and we were nearly landed in the bankruptcy court. I should mention here that in December, 1935, we had become incorporated under the Companies Act and could legally hold money and be sued for it.

In 1938, Dr. John MacMillan, M.O.H., Woolwich, succeeded Dr. James Fenton as chairman. Dr. Fenton was created C.B.E. and it was the general opinion that his invaluable work for health education was an important contributory factor in this recognition of his eminent services to public health.

In this year it was decided to appoint a president and the council was very fortunate in securing the services of Lord Eustace Percy, a former president of the Board of Education.

The eleventh annual congress had been arranged in Glasgow in September 1938. The Munich crisis developed and it was postponed until January 1939, when it was held in London. The twelfth congress, arranged for November 1939, was abandoned.

The War Years : 1939-45

The war brought many changes. Mr. Rankine left for war service and was succeeded by Mr. John Lee. I had been appointed chairman in succession to Dr. MacMillan. Many new health problems arose. The Government emphasised the importance of national fitness. We received record support from local authorities. The Council produced two films, *Fear and Peter Brown* and *Carry on, Children*. Many lectures to groups of all

types were arranged from a temporary office in High Wycombe.

Early in 1941, the Ministry of Health set aside a considerable sum of money for a series of paid newspaper advertisements on health to be issued under the joint auspices of the ministry and the council. The first three or four were on coughs and sneezes. We then submitted one on food hygiene. It contained the sentence "Wash your hands after using the W.C." To our dismay and indignation all the national daily papers except one, the *Daily Mirror*, refused it on the ground that their readers would object to it. We asked the Executive of the Newspaper Proprietors' Association to receive a deputation. Sir Weldon Dalrymple-Champneys, Dr. Charles Hill and I duly appeared before them in a crowded and smoke-laden room off Fleet Street. We emphasised that food infection was prevalent and was interfering with the war effort, but our representations were of no avail.

They pictured the disgust with which those who bought their papers would see such a statement, while reading them over breakfast. To which Dr. Hill retorted that that was the very time for the reception of such a word of advice. We, also, asked if they would accept advertisements about venereal disease. They said, again with the exception of the *Daily Mirror*, emphatically "*no*". Despite this, when a few months later Sir Wilson Jameson broke the taboo by speaking over the radio about the dangers of venereal disease, and we subsequently did submit advertisements on this subject, they took them without demur.

In the meantime, the intensive campaign for immunisation against diphtheria had started as a joint effort by the Ministry of Health and the council. Again it was inaugurated by a broadcast by Sir Wilson. Good results were speedily forthcoming.

From September 1940, many thousands of Londoners spent every night in an underground shelter. The risk of spread of infection was ever before us and it was necessary to do everything possible to while away the long evening hours.

During that winter the council arranged 170 lectures and 202 film shows in deep shelters. We had produced a number of new films. These were shown and new posters designed by Bateman exhibited. We then had a number of film units. It was a dangerous job for the lecturers and the projectionists to make their way to and from the shelters, often while bombs were falling.

Mr. Ernest Brown, the Minister of Health, speaking in the House of Commons on October 21, 1941, referred to the "admirable work" done by the Central Council.

In 1941, it was decided that we ought to have a whole-time medical adviser and Dr. Robert Sutherland was appointed. He remained with us until 1951, when he resigned to take up a post with the University of Leeds. He directed the work of the council during some of its most difficult years and his influence on the health education movement will long be felt.

In 1941, we took over our present offices in Tavistock House, though most of the work was still done from High Wycombe.

In that year, Dr. Charles Hill followed me as chairman of the council. But, before I left office, Sir Wilson Jameson had discussed with me a suggestion that the Central Council should take over the work of the British Social Hygiene Council. This body had started during the first world war as the National Council for Combating Venereal Diseases, and their secretary was the very energetic and capable Mrs. Neville Rolfe.

The ministry had come to the conclusion that it was no longer advisable to undertake publicity work, particularly lectures, on the sole topic of venereal disease and that it would be much more effective if it were incidentally worked in as part of publicity on health in general. At that time the ministry were paying to the British Social Hygiene Council a direct subsidy of £15,000 a year, and had encouraged local authorities to subscribe at the rate of 5s. per 1,000 of the population, which most of them did. Sir Wilson promised the Central Council for Health Education, that if they would take on the work the ministry would transfer the £15,000 annual grant to them and would advise local authorities similarly to divert their subscriptions. All this was done, and the British Social Hygiene Council was wound up after many years of useful service. This change brought several very useful members to the Central Council, and Sir Drummond Shiels came on to the part-time staff of the council.

This special responsibility of the Central Council for publicity about venereal diseases, though in a different form from that adopted until then, brought indirectly to us the Most Reverend William Temple, Archbishop of Canterbury.

Lord Eustace Percy had resigned the presidency in 1941. We decided that the most suitable successor would be Archbishop Temple, who was known to be much concerned about the problems of venereal disease. After much thought, we asked the Minister of Health to write to the Archbishop to tell him something about us and enquire if he would accept an invitation to be our president.

He accepted and until his sudden death three years later, he took

the greatest interest in our affairs. He not only presided on the big occasions, but often attended our committee meetings. He was, however, opposed on principle to the famous emergency regulation 33B which required, in certain cases, the notification of the source of infection of venereal disease, and when it appeared he wrote to the Minister suggesting that he ought to resign the presidency. The Minister replied that the Archbishop was completely free to express his own views from our platform. He did so at a largely attended conference on venereal diseases arranged by the council in February, 1943.

In 1943, the Board of Education issued Educational Pamphlet 119, on health education in schools. In that same year the council held its first summer school at the Chelsea Polytechnic : 241 attended. During the year, the council lost by death three of its early and stalwart supporters, Drs. MacMillan and Maitland Radford, and Mr. Edwin Potts who was a representative of Insurance Committees.

Mr. John Lee resigned in March 1944 and Dr. Sutherland became secretary as well as medical adviser.

In 1944, Dr. (now Sir Arthur) Massey, became chairman, and Dr. Hill and I were elected vice-presidents. The Minister of Health had recognised the council as " the one agency for education in matters of health generally . . . . and the private body to advise him on the dissemination of information conducive to the health of the people. " All seemed " set fair ". We had an annual grant from the Ministry of Health of £15,000, and a large number of local authorities were paying us for our overheads at the rate of 10s. per 1,000 of their population.

We launched out. We wanted to get into closer touch with local authorities by decentralisation. We opened 12 regional offices each with a regional officer, generally part-time, and a clerk. We were spending a great deal of money on the production of films.

Lord Woolton, fresh from his success as the war-time Minister of Food, became our president and was as helpful and interested as his predecessor had been, even attending social functions of the staff. We concentrated now on arranging courses for health teachers, medical officers in the public health and education services, health visitors, sanitary inspectors and school teachers.

In all, we had produced 17 films, but at a crippling cost, and in 1944, we agreed that in future, the films would be produced by the Ministry of Information's Film Unit in collaboration with the Ministry of Health and ourselves.

Postwar : 1946-52

In March 1946, the Health and Cleanliness Council, which had been financed by commercial firms interested in the sale of soap, ceased to function and handed over its equipment and stock to the council. Another regional office was opened : more summer schools were organised. We co-operated with the Scottish Council for Health Education, which had started in July 1943 and which became a constituent body of the council in 1944. We extended our work to Northern Ireland.

Mr. Henry Lesser was the first layman to be elected chairman of the council. This was in 1946 and a well-earned recognition of the great interest he had always taken in the council's work.

All was progressing well when financial insecurity again assailed us. Under the National Health Service Act, 1946, the Ministry of Health became responsible for paying to local health authorities 50 per cent of whatever they spent on health education. Sir Arthur Rucker, their deputy secretary, gave us early notice that the ministry could not give us a direct grant as well as pay the local health authorities 50 per cent of what they subscribed towards our over-head expenses. It was imperative, therefore, that we must frame our budget with this in mind. After long argument, accompanied, however, by many expressions by the ministry, of admiration of the council's work, it was finally agreed that there would be no sudden withdrawal of the £15,000 grant when the Act came into operation in July 1948, from which date the ministry would have to pay the 50 per cent grant to local health authorities. But this was only a postponement. The central grant would be reduced gradually over a few years and finally disappear. The council invited its contributing subscribers to double their grant from 10s. to £1 per 1,000 population on the ground that this would not cost their ratepayers any more. Some did so, but many others did not. In any case, there were some authorities which had never subscribed, and the financial future seemed bleak. The strictest economy became essential and the regional service which had promised so well was closed on March 31, 1948. Within the straitened budget, there was, however, still great activity.

In 1948, Dr. E. K. Macdonald, M.O.H., Leicester, became chairman. There was a well-attended conference on food and drink infections at Olympia. Fougasse (Mr. Kenneth Bird, C.B.E., later editor of *Punch*), gave skilled help with posters. In November 1949, the National Conference on Health Education, was attended by 800. Dr. John Burton was brought in to assist

Dr. Sutherland.

Up till then the members of the council had been largely drawn from the Society of Medical Officers of Health, though other bodies, particularly the associations of local authorities and the London County Council, had always had representation.

In view of the pending withdrawal of the ministry's direct grant and the opinion of the ministry that the council should be financed in future entirely by local authorities, the associations felt that the majority of the members of the council should be appointed by the local authorities through their associations.

If this were done the associations pledged themselves to do all they could to encourage their members to contribute.

Much friendly negotiation occurred and in 1951 the council was reconstituted. Alderman Yorke of Sheffield was elected to the chair, which he occupied with great ability and distinction until 1958, when he was succeeded by Alderman Miss May O'Conor, O.B.E. The child of the Society of Medical Officers of Health, born 24 years before, had now grown up. Under their fostering care it had developed into sturdy manhood. In 1951, it entered upon a new career. It was, however, still the Old Firm but under new management. Moreover, its potentialities are greater than ever. Its objectives, to disseminate information on the maintenance of health and to provide a central body which is the repository of expert knowledge, remain unchanged. The demand for its products is increasing. It is no longer necessary to make a case for health education. It is taken for granted, that this is a most important function of all health departments. The Central Council is playing its part on the international level by giving to other countries the benefits of its experience. Its administration, financial and technical, is in good hands.

As I look back on my early efforts in health education, and recall my paper in 1924, which started the ball rolling, I am well content. I have every confidence that the Central Council for Health Education has not only justified itself but that as the years roll on it will grow in stature and importance and become a mighty force in the improvement of the health of the people of this country.

THE DEVELOPMENT OF HEALTH EDUCATION IN THE U.S.A.

By SALLY LUCAS JEAN, Pioneer of the modern health education movement, 1917—

ACCENT ON THE POSITIVE was a keynote in the development of the health education movement in the United States : the term being selected forty years ago to combat the unfortunate connotation of the word hygiene for teaching health in schools. To the pupils and teachers hygiene had come to mean memorising the anatomical structure, as well as the physiological functions, of the body with emphasis upon the nature of disease, with little, if any, relationship to healthful living. It is true that school health texts had been published since the earliest days of public schools [1], also hygiene and exercises for the " young ladies " entering the first Normal School were advocated upon its establishment in 1839.

Practically the *only* knowledge about health, or health instruction, available to teachers until fifty years ago, was through such texts based on the theory that knowledge of the body and of disease would automatically lead to desirable health attitudes and practices. The voices of a few courageous scholars—two of whom dared to suggest " educational hygiene [2]"—in books published for teachers were scarcely heard. School health texts for children suitable for the various age-levels did not appear until after the health education movement was initiated in 1918.

Inadequacies revealed

Many activities, other than the provision of dry-as-dust school texts, were conducted from the middle of the 19th century with the view of laying a foundation for healthful living through procedures in the schools. Leaders concerned with the health of the Nation, and officials in public health departments, recognised

[1]Horace Mann—known as " the father of U.S. public schools." Appointed Secretary of Education, Massachusetts, 1837.

[2]Lewis M. Terman and Ernest B. Hoag, M.D.—*Health Work in Schools*, 1914.

—as did pioneers in school health—the ineffectiveness of such services as were provided, but it was only during World War I, when figures released by the U.S. Armed Services disclosed the shocking number of young men rejected because of remediable health defects, that the public was aroused[1].

School health services

Physicians first served in our schools, beginning in New York City in a limited capacity, from 1897, and in 1905, graduate nurses became a part of the team. All of the large cities followed this example of the pioneer city in establishing school medical and nursing services, and in 1911 a survey of 1038 school systems in large and small communities revealed that 43 per cent. provided for medical inspection and 90 per cent. provided school nurses[2]. To-day, such services are universal.

Yeoman work had been accomplished by these men and women, but appropriations were too limited to permit the efficient service they had been prepared to furnish. The situation has improved but, with few exceptions, at no time have schools been sufficiently staffed to furnish much more than an inspection and a notification to parents of the defects discovered, together with advice to see the family doctor or to seek free clinic service.

Some other phases of school health programme

Physical education introduced about 1860.

Cooking classes for girls 1887.

The school lunch programme, which has now become a national one, and, fortunately, is sometimes closely correlated to classroom instruction in nutrition through guidance in the selection of balanced meals. The school lunch service had its feeble beginnings in the United States in 1910, and, as in other countries, was a humane effort to feed hungry children.

Remedial efforts included open-air classes—the first established in the U.S. in 1908—for tuberculous children or those from homes where an active case of tuberculosis existed. These were promoted by the National Tuberculosis Association which also developed widely-used devices for health teaching in schools. A recent activity of this association has been the Fourth National Conference

[1]English readers will recall that their country had been similarly stimulated to action by disclosures from studies made of Conscriptions during the Boer War.

[2]Gulick and Ayres, *Medical Inspection of Schools*.

on Health in Colleges, a valuable report of which is available[1]. Nutrition classes, strongly advocated, for a brief time, for pupils who were markedly below weight, demonstrated the value of interesting children in practising health habits through their desire to gain in weight[2]. While in operation they had considerable success and demonstrated the value of arousing children's interest in growth by competition through gain in weight for age and height.

Public health problems complicated by immigration

Here it is well to remind our readers that the United States had a unique problem brought about by the enormous migration from Europe during the 19th century. The foreign stock—those of foreign birth or foreign parentage—was close to 36,000,000 in 1920, when the total population was 105,710,620.[3] Conditions arising from this mass immigration complicated and added to the seriousness of the health situation.

Leaders in various fields joined forces to unearth the facts through carefully developed research. "We had become a meat, bread and potato eating people."[4] One group, a social agency in New York City, in co-operation with the New York City Department of Health, disclosed in a nutritional study of children the startling fact that a high incidence of malnutrition among school children existed in all economic and ethnic groups in the city.[5] It became obvious that inability to secure familiar and preferred foods due to war conditions was not the only cause of inadequate meals, but rather that ignorance of and indifference to the importance of a balanced diet and of the rules of healthful living, as well as failure to correct remediable defects, were the underlying and universal causes.

Challenged by these and other research findings, pædiatricians whose services were not called upon for wartime duty, welcomed the opportunity to utilise their specific ability at home in a national movement to raise the health standards of children. As is the custom in the United States in attempting to solve a newly recognised problem, a committee was formed. In this instance it was by the Paediatric Section of the N.Y. Academy of Medicine,

[1] *The College and Student Health*, National Tuberculosis Association, 1790 Broadway, New York 19, N.Y.
[2] W. R. P. Emerson, Boston, Mass., about 1914.
[3] Louis I. Dublin ; *Health and Wealth*, Harper Bros., 1928.
[4] E. V. McCollum, Ph.D., Sc.D., Johns Hopkins University.
[5] The Association for Improving the Condition of the Poor, approximately 1917.

which created its committee in 1918 entitled "The War Time Problems of Childhood."

A new organisation formed

Within a few weeks, as an outgrowth of this committee, the Child Health Organisation was created as a national body to "teach health habits to children and to secure adequate health examinations for all children in the public schools of the country . . . To consider the urgent problem of malnutrition among school children . . . To safeguard the health of children in industry . . . Propaganda to awaken the public to the necessity of conserving the health of the school child as a basis of national security and stability . . . To promote, or co-operate with, other bodies in securing legislation for the attainment of these objectives."[1].

Prominent men and women from all sections of the country, representing medicine, public health, education, the biological and social sciences, psychology, the humanities and commerce, as well as the Federal Government[2], readily accepted membership upon the invitation of the eminent paediatrician, the late L. Emmett Holt, M.D., who subsequently became president of the organisation. These distinguished men and women set goals, raised funds to establish and maintain a properly staffed office, and actively participated in each step of the planning and implementation throughout the life of the organisation.

One of the activities proposed by the new group was controversial —propaganda. This was hesitatingly agreed upon after the executive committee had most thoughtfully weighed the advantages and disadvantages of its use which they were thoroughly aware would be disapproved by educators. They recognised, however, that the urgency of the situation required drastic measures if educators, health authorities and the public were to be roused to action. They interpreted the use of propaganda as a necessary tool to create a new attitude, toward untried, but sound educational procedures, as a means of promoting health.

Dramatic measures to arouse interest

Many of the services used to arouse the public, as well as school authorities, were of a nature thoroughly disapproved by many educators. Dramatic characters, appearing in gay costumes,

[1]First Announcement of the Child Health Organisation by the Executive Committee, 1918.
[2]Secretary of the Interior, The Hon. Franklin K. Lane.

whose carefully developed dialogue had been approved, and performances witnessed, by the executive board, brought thousands of columns in the press. In one year alone, five characters—three men and two women—appeared 615 times in 29 States before several hundred thousand school children. This service was discontinued in 1922 as educators themselves gradually assumed the responsibility for vitalised health instruction.

Other aspects of propaganda included a parade on famous Fifth Avenue in New York City, with thousands of school children demonstrating various health habits through costumes, " props," and actions.

The enormous interest in rural sections of the country resulted in a different type of " brass band," as Dr. Holt termed the dramatic activities. Through the co-operation of the dairy industry, and a railroad president, a health-teaching train had a run through four northwestern States, carrying two skilled health educators who dramatised health. One taught as he entertained high school students, the other addressed teachers in women's clubs, simultaneously, in towns through which the train passed. Local children and adults visited the display set-up in one car and were supplied with such publications as they desired.

Gradually as desirable effects of such devices on the children's habits were observed, the objecting educators were ready to welcome the well prepared, and pedagogically sound, material offered to teachers and the entertaining booklets prepared for the children by the organisation.

As an incentive to practise health habits, regular weighing of school children was strongly advocated and " A Scale in Every School " became a national slogan.

These pamphlets and booklets for teachers and children, which rapidly appeared for distribution at cost, were unique in being attractive and extremely simple. They were developed with the realisation that teachers had not been prepared to assume the responsibility of promoting the health of their pupils ; their duties in this area having been confined to instruction in physiology, with a slight sprinkling of personal hygiene and physical exercises.

Pleasurable emotions stimulated

The new publications were based on the theory that interest on the part of the teacher, and of the child, was essential ; that desirable habits were more likely to be formed when associated with pleasurable emotions. Sickness and disease were omitted, while

accent on the positive was used in emphasising the desirability of health. Excellent propaganda and informational articles in the press, prepared by skilled specialists in these fields, brought thousands of requests for copies.

Industry joins in the health education movement

Several of these publications were later taken over by a highly respected publishing house which paid a royalty for the privilege of issuing them[1]. These books were adopted by school systems as elementary health texts.

The largest and most powerful life insurance company in the country purchased a million copies of one item for distribution to its policyholders in the U.S. and had a translation for French-speaking Canadians[2]. Encouraged by this sortie into health education, this company later appropriated large funds to the organisation's programme for health education scholarships for teachers and nurses. It also established its own school health bureau which has continued to function successfully for thirty-four years, under the guidance of health educators and an advisory group made up of health and educational authorities not associated with the company. The enormous contributions made by the bureau are of inestimable value.

Other industries established somewhat similar programmes. The dairy interests came to recognise that additional consumers of milk could be secured if school children learned to enjoy milk—to like its taste[3]. The school lunches secured milk sold to pupils at a much reduced cost. Milk drinking was also introduced in industrial plants. It is significant to note here that the use of straws, permitting the drinking of milk directly from the bottle, increased its consumption in both schools and industry. A central office was established by the dairy interests to prepare and distribute its own educational material in a continuing campaign for the improvement of the national diet. Well trained nutritionists and educators manned this set-up with excellent publicists. This office has continued for many years, during which time other centres have been added to function in large cities and on a State-wide basis. These activities are reflected in the great increase of the use of dairy products in the U.S.

[1]The Macmillan Company.
[2]Metropolitan Life Insurance Company.
[3]National Dairy Council.

Teachers' significant contribution

The Child Health Organisation office in New York carried on a continuous sort of "export trade" in new ideas and methods of health teaching through correspondence with those who used its publications.

Teachers were encouraged to consider their classrooms as laboratories for the development of effective health-habit teaching and records of their experiences poured in from every section of the country. After careful editing many of these proved worthy of publication for wide distribution. The name of the contributor appeared with full credit, thus further encouraging the effort. The original and creative thought that the contributed material clearly displayed indicated that teachers were eager and capable of instructing younger pupils in health when they were furnished with appropriate facts in a form they could readily use.

Parents awakened

The newspaper publicity which quoted nutritional authorities regarding calories and vitamins—facts only then being released from the laboratories of the world—increased the interest of parents, who urged the C.H.O. to prepare specific publications to help them maintain the health of their children. Inexpensive, easily prepared, well balanced menus were therefore developed for home use. This material, in simple form, was welcomed by individuals, parent-teacher groups and adult clubs.

Teachers seek preparation for health teaching

Teachers were soon asking where they could secure preparation to teach health ; State superintendents of schools called for help in creating health courses for their teachers. From this interest grew the now quite universal inclusion of health education in the school curriculum.

From the launching of the new approach to health instruction in schools, those responsible for the movement recognised the necessity for all teachers to be prepared to teach health and lines were carefully laid down toward that end.

The aroused interest of administrators of educational systems, and of teachers, led to the conviction of college and university officials that courses in health education for teachers should be offered. Thousands of dollars for scholarships served to strengthen this belief and encourage them to action.

Teachers College, Columbia University, offered in 1918 the first

of such courses with a major in health education leading to bachelor's, master's and doctor's degrees. One student who entered that year was awarded a doctor's degree several years later.

A recent study reports that during 1952-55, thirty-two institutions of higher learning had a combined annual enrollment of between 200 and 250 undergraduates who were majoring in health education, four institutions had close to a thousand students each year enrolled in a dual health and physical education major. An impressive number of under-graduate health education majors are reported to have obtained employment in school health education, while some secured employment in public health education. About 10 per cent. of those who receive a bachelor's degree in health education are reported to have enrolled for further college or university study[1].

The first programme of graduate training for health educators in a school of public health was established at the Harvard-Institute of Technology, School of Public Health, in 1921.

"It is estimated there are approximately 3,000 positions for public health educators in the United States, of which from eight to ten per cent. are currently vacant, due to lack of professionally trained personnel. About 150 new positions for public health educators are established each year ; more new positions would be budgeted if qualified persons were available to fill them . . . . This estimate does not include technical specialists in health education, such as public information personnel, nor does it include persons employed in school health education."[2]

It is regrettable that the total number of health educators or of public health educators in the United States is unknown at this writing. However, the number of qualified public health educators was estimated to be between 950 and 1025, in 1952.[3]

American Child Health Association

Before presenting health education contributions of other groups, it is well to state that the Child Health Organisation amalgamated with the American Child Hygiene Association in 1923 to become the American Child Health Association. The former group had

[1]Abstracted from "Enrollment and Placement of Health Education Majors," by Warren H. Southworth, Dr. P. H., Professor of Health Education, University of Wisconsin. Published in *American Journal of Public Health*, *Sept.* 1957, and *Journal of School Health*, 1957.

[2]President's statement, Society of Public Health Educators Newsletter, Oct. 1957.

[3]Report submitted to a Congressional committee by the Society of Public Health Educators.

dealt successfully, for a number of years, with problems concerning maternal and infant health. Joining forces, therefore, seemed a logical combination. The new group continued to advance health in education procedures, emphasising evaluation of previous efforts on behalf of the school child. This resulted in research on a national scale. Reports of these studies were widely distributed. The work of the Association continued for several years, when under its president, the Hon. Herbert Hoover, it was disbanded on the basis that its activities could be carried on largely by governmental and other agencies.

Health agencies multiply

Through the years many other programmes have been established to promote health through the schools in which health education has gradually been included. Some have a long history of service ; others have been formed more recently. Among these are :—

The U.S. Bureau of Education[1] *:* Studies had been made over the years by this official body, some of which involved school health. In 1918 it appointed a health educator[2]—loaned by the Child Health Organisation—on a dollar-a-year basis, to permit the fuller utilisation of its facilities in promoting health programmes. An appropriation for printing made possible the issuance of publications for teachers which created a demand for more than a million copies in the first year of issuance. Full responsibility for this Division was later assumed by the Bureau, which continues the service with an augmented staff.

U. S. Public Health Service : This official body established a Division of Public Health Education about 18 years ago through which material is issued on educational techniques and community organisation for health education, as well as radio and television programmes. Hundreds of scholarships in public health education have been administered by this Division from funds first provided by Foundations, and later from Congressional appropriations.

American Medical Association : This group has a valuable Bureau of Health Education and holds a conference on school health with physicians, health educators and other health personnel, every few years.

Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association has functioned since about 1920, when it issued charts for classrooms

[1]Now the U. S. Office of Education.
[2]Sally Lucas Jean

and pamphlets for teachers. A comprehensive volume entitled, "Health Education," prepared by this continuing committee, and issued at intervals since 1924, is a guide for teachers, covering every aspect of school health.

The Health Education and Publicity Section of the American Public Health Association was formed in 1923, and has since 1927 been *The Section of Health Education* (1957 membership 1236.) This brought increasingly to public health officials the value of health education, and resulted in their seeking suitable men and women for their staffs. In the first years their chief requirement of the health educator was the ability to write well and to handle publicity skilfully. Experience has since shown that the capacity of the health educator to serve on the public health team as an educator in the promotion of health calls into play various other skills which may be of greater importance than the printed word. To-day a master's degree in health education is usually required for these positions, and a higher degree preferred.

American Red Cross and Commonwealth Fund Child Health Demonstrations : These two groups made significant contributions to health education within the framework of total-community health work during the years 1922-29. These demonstrations were made in widely differing, but average, communities in five States. The American Red Cross financed one of these with an appropriation of $200,000[1]. Four others were underwritten by the Commonwealth Fund to the extent of about a half million dollars[2].

The procedures developed in these demonstrations by health educators, as shown by subsequent studies, resulted in enriching health teaching in the schools and in affecting the attitudes and habits of both children and adults. The findings were made available through professional reports.

American School Health Association : This body was organised in 1927 and had as its first objective recognition that "the school is as responsible for the healthy physical growth and development of children as it is for the development of their mental attainments." It has become an important force in the promotion of school health programmes and includes, in its membership of about 5,000, health educators, school nurses and physicians. Previous reference has been made to one of its valuable studies.

The National Society for the Prevention of Blindness, a

[1]Mansfield, Ohio.
[2]Rutherford Tenn. ; Salem, Ore. ; Fargo, N.D., and Athens, Tenn.

tremendously important organisation, has recently issued a fact-finding survey report of representative colleges, concerning practice in health education with special reference to eye health[1].

The National Health Council has an active committee on health education and encourages health education as a career.

The Society for Public Health Educators, a professional organisation, came into being in 1950. The purpose of the group is to contribute to the advancement of the health of all the people by encouraging study ; by improving practices employed ; and by elevating standards in the profession of public health education. Eligibility for membership requires proper academic training and background, in addition to two years of actual service, under the auspices of a recognised agency. The educational qualifications and functions of the public health educator are those clearly defined by the Committee on Professional Education of the American Public Health Association. Of the eleven schools of public health accredited by the A.P.H.A. for the degree of master of public health, seven offer curricula in public health education. This organisation, founded by a small group, has high standards and so has a more or less limited membership, which in 1957, totalled three hundred.

The Society had underway for 1958, an " Internal Study on Functions, through Interviews with all Members, Training and In-Service Education Needs of Professional Health Educators."

Agencies for special diseases and other health problems : Volumes could be written about the excellent health education publications currently being distributed by national and local agencies which deal with safety, mental hygiene, tuberculosis, heart, cancer, venereal disease, poliomyelitis, etc. These supplement the authoritative and attractive textbooks now used in schools and colleges and are available to the public. Industries, too, by the score, are making outstanding contributions with audio-visual aids, as well as literature that is originated by qualified health educators.

" What's Past is Prologue."

" If only we knew what progress is. Does it depend on the way we are going and what we want to do !"[2].

This brief report attempts to present " the way " health educators

[1]Report available from the National Society for Prevention of Blindness, 1790 Broadway, New York, 19, N.Y.
[2]H. M. Tomlinson ; ***The Sea and the Jungle.***

are going.. " What we want to do " is to promote the health of all people as a part of the health team.

How successful have all these efforts been ? How satisfying it would be to credit health education with lowering of mortality and lengthening of the lifespan in this country of ours ! As these amazing facts must be attributed to the joint effort of many forces, and largely to the laboratories of the world, what indications are there that health education has served to raise the health standards of the public ?

It seems fair to claim that one indication is the readiness of the populace to co-operate in programmes such as the Salk vaccine inoculations when 65,000,000, in the population of 172,000,000, have had one or more shots of the vaccine. This has required individual action, which may be interpreted as increased respect for scientific health facts.

Medical colleges, adding public health educators to their faculties, give promise of better understanding of the part health education may play in the efforts of the medical profession to prevent and cure disease.

School health examinations are now more thorough, though given at longer intervals than formerly. There is a growing realisation that they should be, and sometimes are, an educational experience.

The school nurse and the visiting nurse have grown in stature and usefulness, due to special training, and now implement health education in classrooms and homes.

Many thousands of dollars are contributed for public health education scholarships, which are eagerly grasped.

Well attended health education workshops for teachers, during week-ends and summer vacations, are now held in every State.

The continuous stream of books on health, produced by publishers, often become so popular that they appear in many editions, and they are usually of high calibre, receiving excellent reviews in the press.

There is recognition by industry that it is profitable to employ health educators, just as they have for some years utilised physicians and graduate nurses to improve the health of employees and to lower absenteeism.

At no time in our history have the public been more health-conscious : radio and TV programmes on health and on disease, with popular interpretation, get added attention ; articles in the daily press, in magazines, journals and consumer publications are

read and discussed with heated interest.

There is encouragement in knowing that though there are many unfilled gaps in health education in schools and for the public, they are recognised and plans are underway to fill these gaps.

All this is hopeful for the future, but the need is for greater confidence on the part of more of the people in scientific health facts and a willingness to replace practices based on out-moded knowledge, superstition and custom.

" Health is not thrust upon us, but requires our active participation." The efforts of specialists in health and groups on local, national and international scale, are developing a greater degree of health for more people than the world has ever known. There is, however, much greater promise for maximum health for a greater number through the development of a health conscience which will assert itself and put knowledge of health to work in the lives of all people[1].

The strides made in a brief forty years were taken largely by pioneers, many of whom were dedicated individuals who are being replaced by better educated men and women, who, too, dare to dream of maximum health for all the peoples of the world.

[1]Sally Lucas Jean : Editorial in *To-day's Health*, Amer. Medical Assn., under title of " Have you a Health Conscience ? " Oct., 1952.

THE PROGRESS OF HEALTH EDUCATION IN THE U.S.S.R.

By L. S. BOGOLEPOVA,
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THE history of Russian medicine knows a number of names of prominent clinicians and rank-and-file physicians who considered it their professional duty to disseminate hygienic and medical knowledge among the broad mass of the public.

In the second half of the eighteenth century health education was closely bound up with the history of higher medical schools.

Thus, the first Russian professor of internal medicine of the Moscow University, S. G. Zibelin (1735-1802), in his famous speeches and reports on various occasions paid much attention to child health protection and to the correct nursing and feeding of babies. The first Russian scientist-obstetrician, N. M. Ambodik (1748-1812), gave in his works comprehensive hygienic advice as regards the care and upbringing of children.

The outstanding public figure, writer and pedagogue, N. I. Novikov (1744-1818), published the first Russian children's journal *Reading for Children*, in which he gave extensive space to the articles on child health protection.

S. F. Khotovitsky (1847) in his book on the treatment of children's diseases dwelt on questions of dietetics, care and hygienic regimen of children.

The advanced specialists in internal medicine of the nineteenth century, E. O. Mukhin, I. E. Dyadkovsky, M. Y. Mudrov and later S. P. Botkin, G. A. Zakharin, A. A. Ostroumov, V. A. Manassein and others, each in his own way, made medical and hygienic knowledge available primarily for the sick and their families. The confirmation of it can be found in their addresses at the meetings of the Moscow University, in lectures delivered to the student bodies, in the medical press and in the lay magazines.

Extensive work along this line was conducted by the "Commission for the spreading of hygiene knowledge among the people" attached to the Society of Russian physicians named after Pirogov. Founded in 1894, this Commission published popular medical literature, put out slides, albums and tables.

Since 1917, health education became the concern of the state and was included in the system of health protection, which was organised along the lines of prophylaxis and was effected by numerous organisations. At the beginning of 1918, a special department for guidance in health education was set up in the People's Commissariat for Health. Health education was carried out not only by the organs of health protection, but also by those dealing with education and culture, while social organisations, trade unions, the Red Cross and Red Crescent societies, and scientific medical societies were taking an active part.

Health education—shifted to a new footing—posed as its main tasks the dissemination of medical and hygienic knowledge among the broad mass of the public so as to enable them through this knowledge to take an active part in effecting the state measures directed towards bringing up a healthy generation of Soviet citizens, the sanitation of labour and living conditions of the working people in town and village, the preservation of a high level of their health and working capacity, and the fight for their longevity.

The prominent theoreticians of Soviet health protection, N. A. Semashko and Z. P. Solovyev, and other physicians doing active social work, enthusiastic participants in the building up of a new system of health protection, placed great importance on health education.

"One can say without exaggeration, and that is particularly applicable to our country," wrote N. A. Semashko, "that prophylaxis begins and ends with health education."[1]

The slogan "The cause of health protection of the working people is the concern of the working people" brought into being various forms of activity among the public who became health protection conscious.

In 1918-1920 the bulk of health propaganda was directed against epidemics on the front and in the rear. Sanitary corps of the army were especially active at that period. In many cities, popular

[1] N. A. Semashko: "Prophylaxis and Dispensarisation," published in *The Fundamentals of Prophylaxis in Medicine*, State Publishing House, Moscow, 1927.

editions were put out in large circulation, and the materials on the methods of health education came into being. Every physician and every assistant physician brought hygienic knowledge to the masses ; health education became part and parcel of the whole medico-prophylactic work.

New social organisations were set up, such as " Workers' commissions for the propaganda of cleanliness." These commissions consisted of representatives of workers, of health departments and of social welfare departments of the People's Commissariat for Labour. In the army " Commissions for cleanliness ", " sanitary trios " (Santroiki) and " sanitary quintets " (Sanpyaterki) were created.

As the years went by the country commenced restoration of the national economy (1921-1925). New tasks were set for health education. The main attention was focussed on mother and child care, the hygienic upbringing of schoolchildren, the sanitation of living and labour conditions of industrial workers, the improvement of urban and rural planning. It was at that time that the Institutes for Mother and Child Care were established in Moscow and Leningrad, and their workers did a lot to improve health education among women.

Tremendous efforts were made in the fight against tuberculosis and venereal diseases. Medical workers of specialised dispensaries were actively participating in health education work.

The dispensary supervision of the health of industrial workers made it possible to acquaint them on a large scale with the fundamentals of personal and social hygiene as applied to various types of professional work.

The first films dedicated to health protection appeared in 1922-1924. The films contained valuable information on the anatomy and physiology of the human body, personal and social hygiene. The spectators received a basic knowledge of the fundamentals of prophylaxis of infectious diseases, especially tuberculosis.

The first all-Russian conference on health education took place in Moscow, March 15th-20th, 1921. It was attended by 203 delegates, most of whom represented the periphery. This occasion testified to the fact that health education already at that time was shaping as an independent branch of health protection. The delegates touched on the work of courses aimed at removing ignorance regarding health, on sanitary propaganda among peasants, women in national republics, schoolchildren and worker students of evening factory-schools.

There were enthusiastic discussions of the methods of delivering lectures, producing publications and arranging exhibitions.

It became clear that health education was in need of adequate specialists and specialised institutions whose main concern should be the work of organisation, i.e., institutions which should become the centres of health education and health propaganda. The houses of health education performed this task.

While putting forward the slogan " From the fight with epidemics towards the sanitation of life and work " the medical institutions gave increased attention to the supervision of industrial workers, the improvement of sanitary conditions in factory shops, and the protection of labour.

New tasks and new conditions dictated insistently the necessity for scientific elaboration of health education methods. It was in 1928, that the Moscow regional health department made a decision to organise in our capital a special institute of sanitary culture. By that time the country already had a rather large group of experienced health educators.

Health education issues were very often discussed at that time at all-Union, all-Russian, Ukrainian and other congresses and conferences. The Institute of Sanitary Culture set out with the publication of collected volumes of *The Theory and Practice of Health Education*, organised a workshop of visual aids, published popular literature, and employed special theatrical troupes for the dissemination of medical knowledge, in which professional actors, artists and stage managers participated.

Later the theatre of the Institute had two groups : one consisted of professional actors and the other of schoolchildren aged 8-14. In the rigorous years of the last war both groups performed in hospitals before wounded soldiers, in army units, at industrial enterprises and also at meetings of health workers in Moscow and other cities and towns of our country. The children performed mainly in Moscow schools.

Formerly there were eight travelling health education theatres in the Ukraine which toured villages and mines and performed in workers' clubs. Since 1928, the state health education theatre has been successfully giving its performances in Tbilisi.

Maternity schools attached to women's consultation centres came into being. The doctors working there started to teach women how to feed and rear their children. Alongside these schools at consultations and creches correspondence courses for mothers were organised.

In Moscow in 1933, a large exhibition was opened for mother and child care propaganda among the population and social workers. The exhibition was, at the same time, a centre of health education methods, where visual forms of propaganda and the principles of organising exhibitions on mother and child care were elaborated. Thousands of chiefs of creches, nurses of children's institutions, etc., visited the exhibition and became acquainted with its instructive stands.

In 1938, the Central Scientific Research Institute of Health Education of the Ministry of Health of the U.S.S.R. was organised on the basis of the Moscow Regional Institute of Sanitary Culture.

The plenums of the Councils of Health Education played a definite role in improving the dissemination of medical knowledge. These councils consisted of representatives of various social organisations engaged in health education work, who could exchange and summarise the best experience.

During the war of 1941-1945 against the German fascist invaders the network of houses of health education was abruptly reduced. Many health educators joined the army, or worked in military hospitals. Allocations for health education dropped sharply. Nevertheless, despite all the difficulties brought about by the war, health education continued to develop at the front as well as in the rear. Its content changed, of course, the main attention became focussed on the propaganda of blood donorship, anti-epidemic injections, measures instrumental in the decrease of incidence of diseases, industrial injuries, etc. The very methods and forms of health education became different : lectures for big audiences were replaced by talks in hostels, homes, air raid shelters. On a wider scale than before health educators used " ready-made " audiences : various conferences, courses, etc.

In the trying years of war the significance of health education as a very important part of prophylactic, anti-epidemic and military-sanitary work was brought to the fore.

Extensive work started in schools : in 41,000 schools the organisations of the Red Cross society created 60,000 sanitary posts ; 5.5 million schoolchildren received badges GSO (Ready for Sanitary Defence).

In 1942, a new form of activity among the masses developed : public sanitary inspectors appeared. They were delegated by factory trade union committees, boarders of collective farms, and lower divisions of the Red Cross and Red Crescent societies. Public inspectors participated in the carrying out of anti-epidemic

measures, supervised sanitary conditions of factory shops, mess-rooms, creches, kindergartens, and assisted in health education work. Later these public representatives were called plenipotentiaries of the public. At the present time they are actively participating in social work and are of great assistance to medical workers in carrying out sanitary-hygienic work.

Extensive scientific and popular literature and posters on the prophylaxis of acute infectious diseases, first-aid, care of the sick, blood donorship, etc., were published during the war. The Central Scientific Research Institute of Health Education played a considerable role in all this work. The Institute published numerous books, pamphlets and posters, and organised a number of exhibitions, courses, and field seminars for various groups of medical workers.

After the war the dissemination of hygienic knowledge was gaining momentum, and becoming more and more widespread. All medical workers spent part of their working time in health education. This made it possible to cover by health propaganda the broadest sections of the people.

Notable achievements in this field were made in national republics. For example, the house of health education in Baku, organised sanitary-hygienic propaganda among the workers of the oil industry.

The doctors in the Georgian Soviet Socialist Republic undertook extensive work at industrial enterprises and among young workers. In Tbilisi, in 100 general schools out of 112, health education subjects were taught.

The current tasks of health propaganda are discussed annually at the all-Union conferences of health educators.

The expansion of the network of houses of health education can be seen in the following figures : in 1928, there were 43 such houses in the U.S.S.R. ; in 1940, 212 ; in 1950, 298 ; and in 1957, the figure became 360.

The para-medical personnel put much of their energy into the improvement of sanitary culture in villages and are rather successful in this.

The methods and means of mass health education work are variable. They are being perfected more and more. Radio, cinema and television are being used on an ever-increasing scale. Scientific popular editions give more space to the issues of health protection of children, to problems of personal and social hygiene ; more can be found in these publications on the hygienic

maintenance of houses, the hygiene of labour, rest and nutrition.

Each year a great number of health education lectures are delivered in the U.S.S.R. For example, in one republic of Turkmenistan alone, 7,386 lectures were read in 1956, more than 195,680 talks were given, there were 263 broadcasts by doctors and 5,546 film showings.

The new scientific popular journal *Health* was first published in 1955, and it very quickly won the recognition of the public. Employing various literary genres—essays, stories, poems, the journal is systematically teaching the population of towns and villages to prevent diseases, observe hygienic rules, etc.

Together with mass propaganda on health, which is meant to cover the broadest sections of the people, the hygienic training of separate groups of the population is gaining an increasing significance. To these groups belong : schoolchildren, pupils of vocational schools and factory schools, workers and foremen of various industries, mechanisers of agriculture, collective farmers. The sanitary knowledge of the staff of dining rooms, restaurants, trade, and food enterprises is steadily improving.

One of the interesting and new ways of publicising medical knowledge are the field sessions of scientific research institutions held at industrial enterprises. Having examined the sanitary conditions of an enterprise, the conditions of work and life of the workers, and the incidence of diseases among them, the scientists deliver lectures.

Of great significance is the dissemination of medical knowledge in large industrial areas, in iron and steel, machine building and coke-chemical plants. The training of workers in hygiene begins in factory schools and goes on at special courses and circles. The newly admitted workers take an 8-hour course on first-aid.

In their practical activity, health educators in our country are guided by the methods elaborated in the Central Scientific Research Institute of Health Education. Its staff works out various methods of health propaganda, makes a study of health education work carried out in medical prophylactic institutions, schools, collective farms and at industrial enterprises. During the past few years alone, the Institute supplied practising physicians with a number of guides on the organisation and content of health education among mothers of young children, among schoolchildren, factory school pupils, workers and foremen of the leading industries, mechanisers of agriculture, patients under dispensary supervision, etc. Besides, methods have been worked out for making the population

acquainted with the main measures to be taken against a number of diseases.

The Institute of Health Education supplies the periphery with programmes, teaching plans, guides, visual aids, literature, posters, texts for talks and scripts for broadcasts, etc.

The production of health education films has greatly increased of late. Television programmes in Moscow include special items on health.

The Institute of Health Education surveys the methods of health education in other countries and shows foreign visitors the work done by Soviet medical workers. In 1957-1958 the Institute was visited by more than 70 delegations. These visits promoted the establishment of contacts and the exchange of information between Soviet and foreign health educators.

Numerous facts testify to the high proficiency of health propaganda. Special investigations conducted at one of the enterprises in the city of Yaroslavl demonstrated that as a result of well-performed health education work the incidence of disease among women workers has been steadily decreasing during the last four years. At one large plant in Sverdlovsk, eye injuries decreased by 50 per cent. through health education work.

In the house of health education in Saratov the prevention of street accidents among children has been the main type of work done during a number of years. Teachers, parents, school physicians, various extra-mural institutions, the Red Cross society, trade unions, Komsomol organisations are engaged in health education work. As a result, during the past two years, the number of street accidents with schoolchildren decreased twofold and is continuing to go down.

Following extensive health education work conducted among pupils of vocational schools of the metal-working industry the incidence of eye injuries has sharply decreased.

At a number of enterprises in the capital the percentage of women attending prophylactic examinations has increased from 50-65 up to 95-100 per cent.

More and more of the people participate in the improvement of sanitary conditions of cities, villages and settlements. Already before the war the mass movement for sanitary culture started amongst the population of Azerbaijan. It sprang up with new vigour in the spring of 1954 and is yielding its wonderful results ; the outward appearance of collective farms has changed, the medical and prophylactic work of doctors has improved, infectious

diseases are steadily disappearing.

Similar movements in the Byelorussian Soviet Socialist Republic brought about competition between towns for the improvement of sanitary conditions. The result of this close attention of the people to the issues of health protection in the Byelorussian Soviet Socialist Republic was a considerable decrease of the incidence of infectious diseases.

The favourable influence of these popular movements is strongly felt in Uzbekistan, Moldavia, Yakutia and in the cities of Orekhovo-Zuyevo, Tula, etc. Much has been done by health educators to activate this wide struggle for the health and the sanitation of labour and living conditions.

The latest plans for the development of the national economy of the U.S.S.R. place before the agencies of health protection the task of deepening and broadening prophylactic work. Therefore, in the coming years health education will continue to develop and will improve the methods and means of work directed at protecting the health of the population, prophylaxis of diseases and increasing the expectation of life.

Title page and index to Health Education Journal vol. XVI (1958) *are now available and will be supplied on request.*

HINDUISM AND ITS INFLUENCE ON HEALTH EDUCATION

By C. R. AMIN, M.B.,B.S.

IN this article, before one can usefully talk of the influence on health education it is imperative that the basic philosophy of Hinduism be briefly but clearly explained. The essential ideas on which it is founded and the conception of the life which inspires it must be considered.

The Hindu view of the individual and his relation to society can be best brought out by a reference to the synthesis and gradation of 1. The fourfold objects of life (*Purushartha*) : (*a*) Desire and enjoyment (*Kama*) (*b*) Interest (*Artha*) (*c*) Ethical living (*Dharma*) (*d*) Spiritual freedom (*Moksha*) 2. The fourfold order of society (*Varna*) : (*a*) The man of learning (*Brahmin*) (*b*) The man of power (*Kshatriya*) (*c*) The man of skilled productivity (*Vaishya*) (*d*) The man of service (*Shudra*) 3. The fourfold succession of the stages of life (*Ashram*) : (*a*) The student (*Brahmachari*) (*b*) The householder (*Grihastha*) (*c*) The forest recluse (*Vanprastha*) (*d*) The free super social man (*Sannyasin*).

By means of this discipline the Hindu strives to reach his destiny, which is to change body into soul, to discover the world's potentiality for virtue and derive happiness from it. The state of the householder is the mainstay of Hindu social life. Man attains his full being only by living in harmonious social relationship. Hinduism does not demand withdrawal from life into mountain tops or gloomy caves as an essential condition for spiritual life, but it is by fulfilling his functions in society that the individual begins to feel the greatness of the soul which is behind the veils of nature, and longs to reach his true universality. Thus, the way to higher life is normally through the world.

Hindus as a race being fastidiously religious, the concepts of hygiene, nutrition and community health became religious

observations and rituals. In the laws of Manu (A.D. 200), there are numerous decrees and religious rites regulating family and personal hygiene, the importance of food, water supply, etc. Manu like Moses was perhaps the greatest sanitarian of ancient times and his edicts regulating the inspection of food, community health and personal hygiene show the importance attached to health education which was imparted to the people as moral instructions (*Updesh*). Everything relating to personal hygiene and all processes of the toilet were made into religious observances.

Now, bathing was considered particularly important and as a result of this inheritance from the past every Hindu today must have a bath every morning. It is a religious injunction on individuals not to have any meals before having cleaned their teeth and having had a bath.

The oral hygiene of brushing the teeth with a twig of some special trees is prevalent even today. This surely is much more safe and efficient not only in cleaning the teeth but in preventing infection from badly cleaned (as is usually the case) modern tooth brushes.

Let us now consider some of the relevant rules a Hindu has to observe in answering calls of nature. He takes in his hand a vessel full of water and proceeds to the appointed place which is usually set apart some distance away from the village. Having got there, he will take off his slippers at some distance away and will then choose a clean spot on level ground. Places to be avoided are the edge of a river, a pond, a well or a public thoroughfare. He should not select a light coloured soil or a ploughed field. He must not wear a new garment. He must stoop down as low as possible. He should keep perfect silence. He must chew nothing and have nothing in his mouth. After rising it is a great offence to look at his heels. He should wash his hands and feet on the very spot with water from the vessel, holding it in his right hand. It would be thought unpardonably filthy to use the right hand for cleaning. Here it is obvious that these strict religious instructions incorporate some very effective principles of hygiene which no doubt educated people in those days on matters of sound health.

Hindus without doubt appear to be very scrupulous in matters relating to the preparation, cooking and eating of food. The kitchen is usually out of bounds from a stranger's sight and is meticulously cleaned twice a day. Before entering the kitchen a clean set of clothes is invariably worn. Shoes are deemed unclean

and therefore no person is allowed to enter the house with shoes on, let alone the kitchen. Religious observances have been instituted consisting of fasting on the eleventh day of the moon cycle, on the new moon and the full moon days. On these days they are to eat only one meal a day, and that consists mainly of fruits and vegetables. This not only avoids monotony of food but also trains them into self-control and self-denial.

Water may be said to be a Hindu's sole beverage. The heat of the Indian climate, and the profuse perspiration which is the natural result may, of course, have a great bearing on this. As numerous diseases which are endemic are carried through water, the Hindus particularly of the Brahmin and Kshtriya classes imposed strict religious restriction so that it almost amounted to a great sin if water were carried into their household by persons other than of their own caste. Buttermilk used to be a very favourite drink with the Hindus but they had an invincible repugnance to any intoxicating drink. Drunkenness was looked upon as a degrading and infamous vice.

Let us now consider some of the ordinary events in the social life of a Hindu householder with a view to seeing how Hinduism has helped him on health matters.

The bearing of a child is considered lucky. The householder's wife is usually expected to return to her parents during the later months of her pregnancy and to stay there until after the birth of her baby. Now, this custom appears to have some sound wisdom behind it. It would be obvious that being with her parents at the time of her confinement, at least for the first one, particularly when the girl is young, is going to give her enormous peace of mind. Her mother who is well experienced is in charge and maybe she is surrounded by some of her childhood friends. All this combines to give her a great sense of security. At the same time, as she is away from her husband, the chances of sex relations both during pregnancy and soon after childbirth are obviated.

During the confinement, the house where a Hindu woman is confined, as well as those who live in it, are deemed unclean for ten days. They must have no intercourse with others during that period. On the eleventh day all linen and clothes that have been used during that time are given to the washer-man, the house is purified, and there follows a special ceremony performed by a priest. But the woman does not become clean before the end of forty days and until that time has elapsed she must live apart and must not do any household duties or have communication with

anyone. During the whole of this period the mother is traditionally fed on extra nutritious food. These observances do in fact impose strict modern hygienic principles for the protection of the mother from infection as well as giving her sufficient time to recover her normal strength.

While on the subject of women, we may usefully point out the practice of a sort of quarantine of women during their monthly periods, for four days. During these days women are not allowed to perform any of the normal duties, nor are they in contact with anybody, thus affording them good rest while they are losing and ensuring against their contaminating any food.

There is an interesting custom among Hindu girls for securing happiness in married life, and it is supposed to be of a religious nature. This practice consists in young girls of seven to twelve years of age being encouraged to sow some seeds, like beans, and observe their germination into tender plants. During the latter part the girls not only have to look after the plants, but have only one meal a day, and that, too, without salt and consisting mainly of bread and fruits. They thus develop attachment to the tender plants and eventually after a few days they are encouraged to take these plants to the nearest river or pond and ceremoniously put them in the water. This practice, apart from giving training at an early age in some sound biological principles, prepares them for sacrifice for an ideal and a detached view to meet the exigencies of the married life.

The crown and glory of a householder approaching his old age is to make pilgrimage to certain temples and holy places or to climb up to the top of certain very high mountains, in fact any place which has any distinctive peculiarity or grandeur. Hindus seem to have a knack of deifying everything extraordinary in nature, thus making sure that even the most average villager will aspire once in his life time to visit those places. Bathing in several rivers is supposed to purify both the soul and the body e.g. Ganges, Indus, Godaveri, Kaveri and others. It is most interesting that the spots that have been traditionally selected for bathing are some of the most beautiful spots one could wish to visit in India.

Lastly, the householders are enjoined to practise *Hatha-yoga* and *Raj-yoga*. *Hatha-yoga* is a form of personal hygeology which is quite well known as a system of exercises to train every organ of the body. The body being the temple in which the soul is supposed to reside, it must be kept healthy. The Hindus have therefore developed this *yoga* to a very fine degree of scientific

efficiency and there is little doubt that it is very beneficial in attaining long life. *Raj-yoga*, is similarly a form of psychological training. This, when practised with the help of a trained teacher, certainly ensures sound mental health and the meditative processes involved are of immense value in achieving and maintaining extraordinary powers of concentration. This power, when achieved, bestows supreme peace of mind, which is so necessary in present day life.

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SOME OBSERVATIONS ON THE HEALTH EDUCATION CONTENT OF BUDDHISM

By JOTHIYA DHIRASEKERA, University of Ceylon

BUDDHISM recognises the susceptibility of man to decay and disease as an inherent weakness of the human body. Nevertheless, good health is an ideal to be sought after, and is declared to be man's highest gain. Although it is not the direct concern of Buddhism to prescribe for healthy living, yet it has a real interest in the matter in so far as it recognises a healthy and unwearied body as the seat of a healthy mind. Voluntary or involuntary subjection of the body to pain throws the mind out of gear and the mind, far from attaining any higher state of psychic development thereby, is put into utter confusion. Thus certain injunctions which are laid down in Buddhist literature for the guidance of the lives of Buddhist monks, which aim at the composure of the body and the mind, may be taken as valuable hints at health education.

Buddhism considers that the sustenance of all beings is centred on the basis of food. Conceding that food is a basic need, it adds that it is to be consumed with moderation. At least, as far as the monks are concerned, the Buddha says that the regularity and the frequency of meals and the quantities consumed each time are important considerations in determining physical fitness and well being. Moderation in eating not only eliminates physical discomfort, but it also helps to reduce the susceptibility to ailments to a minimum. As far as the quantity of food to be eaten by a monk at a single meal is concerned, it is said that a meal should be concluded while there is still the possibility of taking four or five more mouthfuls of food. It is a caution against the straining of the digestive system, the perfect functioning of which is considered a commendable asset. It is for this same reason that the one meal a day practice is recommended to the Buddhist monks. They not

only abstain from eating at night but also take the meals they are allowed with strict regularity. These considerations do imply a certain abstemiousness in Buddhist monastic life but they are also recommended as healthy habits leading to a better poise of both mind and body. Buddhist texts also know of foods of different types with special virtues in them, some providing the basic nourishment required by the body, others providing extra vim and vigour, and yet others which contribute to the perfection of different parts of the body. There is also reference to forms of special diet which are recommended to invalids, according to their ailments, which are necessary and at times indispensable for speedy and effective recovery. This is considered as much a necessity as medicine and proper nursing.

In the daily habits of the Buddhist monks we witness a number of practices which seem to have resulted from considerations of personal cleanliness. In Buddhism, neglect of the body and personal cleanliness never amounted to a religious virtue. Clean habits are a part of the monastic discipline. In fact the morning ablutions of a monk begin with the care of his teeth. To clean the teeth, he uses an improvised brush made from a soft fibrous twig. It is discarded after use and is never stored for a future occasion. After every meal, too, he must rinse his mouth thoroughly and allow no particles of food to remain lodged between his teeth. This, no doubt, recognises the possible decomposition of such matter in the mouth and the consequent decay of teeth that would follow.

Water appears to have been used freely as a medium of cleaning. Not only are the body, face, hands and feet washed clean with water, but also articles of daily use, such as cups and bowls, and even garments, are washed regularly to keep them clean. However, the presence of living organisms in water is recognised and monks are expected to use water for drinking only after straining it properly. The light of the sun is considered as good a companion as water in bringing cleanliness and freshness to everyday life. Monks are advised to keep their dwellings clean by observing the following hints. All articles of daily use, such as mattresses and cushions, carpets and rugs, are to be dusted and exposed to the light of the sun regularly. Even wooden chairs and sleeping boards are to be taken out of the apartment and treated likewise. The bowls in which the food is eaten are to be washed and warmed in the sun before they are stored away for use the next day. In cleaning the apartment one should remove cobwebs and wipe all

windows and ventilators through which light and air are admitted. If the walls have become dirty, they are to be washed or mopped with a moist pad according to their finish. If the floor is well finished, it may be cleaned with a mop. If it is a dusty floor which is unfinished, it should be sprinkled with water before sweeping lest the dust should rise and scatter itself everywhere. The monks are also expected to be scrupulous in the disposal of waste matter. Special receptacles are kept in the dwellings for spitting, and these are cleaned and dried in the sun regularly. They were also methodical in the use of lavatories and never made use of open places for such purposes : they were, in fact, forbidden to foul grasslands and water.

The Buddha also appears to have respected the part rest plays in maintaining good health. He always stated that excessive effort leads to fatigue and weariness which dulls and confuses the mind. It is not a strained mind through a strained body that achieves spiritual greatness, but a mind that has first been cultured through the discipline of the body. A monk is not denied sleep but neither does he become enslaved to it. He retires to bed with a certain mental alertness, determining beforehand, as it were, the amount of sleep he is going to have. Sleeping on one's right side is commended as the best form and rising early from sleep is considered a virtue. There is little doubt that in the art of healthy living in Buddhism the monks led the way.

HEALTH EDUCATION IN JUDAISM

By BERNARD HOMA, M.R.C.S., L.R.C.P.

JUDAISM, which is based on the teachings of the Five Books of Moses together with their traditional Jewish interpretation, is much more than an ordinary religious code. It is, in fact, a way of life, guiding in great detail the actions of its observers not only in matters of moral behaviour and ethical conduct, but almost at every turn of their daily activities. As might therefore be expected, it abounds with instructions affecting the health of the individual as well as of the whole community. So extensive is this teaching that it is possible to give only a sketchy account of this enormous section of Jewish law, parts of which date back more than three thousand years, in the space of this short survey.

It is now generally recognised that good health is largely related to cleanliness, and in accordance with Talmudic teaching, cleanliness is next to Godliness. A clean body is essential to a clean mind, i.e. a pure spirit, leading to the concept of a healthy mind in a healthy body—*mens sana in corpore sano*. "Speak unto the . . . . children of Israel and say unto them : Ye shall be holy, for I the Lord your God am holy." Thus commences the 19th chapter of Leviticus, the book that describes the functions of the Priests and also the duties of the Priestly Nation, for just prior to the giving of the Ten Commandments, Israel had been exhorted : "And ye shall be unto Me a kingdom of priests and a holy nation". (Ex. 19, v.6).

Much of the health education stems from this command to be holy, and holiness often means purity which in turn implies cleanliness. In this context, the term purity (cleanliness) is frequently used in opposition to the term "impurity" or "uncleanness", which, as will soon be evident, can sometimes mean infection.

This call for cleanliness naturally led to the introduction of hygiene, a branch of medicine which has come into general

application only in recent times. A notable example of its early practice in the sphere of field sanitation and camp hygiene is to be found in Deuteronomy 23, vv. 13, 14, which has this to say :

> " Thou shalt have a place also without the camp whither thou shalt go forth abroad. And thou shalt have a paddle (spade) among thy weapons ; and it shall be when thou sittest down abroad, thou shalt dig therewith and shalt turn back and cover that which cometh from thee."

Strict rules were also laid down in regard to personal hygiene. Apart from the laws dealing with ritual bathing (total immersion) after certain forms of uncleanness, there is the requirement to wash the hands thoroughly before meals and after using the toilet. The first action in the morning on rising from bed is the ritual ablution of the hands, face and mouth.

Food is closely bound up with health, and here also, members of the animal kingdom are sub-divided into " clean " or " unclean " according to whether they may or may not be consumed. The laws are laid down in Lev. 11 and Deut. 14, of which the following is a brief summary. Only such four-legged animals as chew the cud and are cloven-hoofed may be eaten. These are confined to the ox, sheep, goat and deer families, so that the pig, camel, rabbit, hare and horse, for example, are forbidden. With regard to birds, some nineteen species of those forbidden are enumerated, nearly all birds of prey, whereas those permitted, by accepted tradition, include the domestic fowl, duck, goose, turkey and dove. As to fish, only those with both fins and scales may be eaten—all the rest, e.g. shark, dogfish, skate, ray, eels and jellyfish are forbidden. So also are all other aquatic animals such as shellfish, amphibia and whales, as well as many other forms of life, including reptiles and rodents.

No reason is stated for this classification into " clean " and " unclean " animals. It is of interest, however, to note that among the commonest causes of food poisoning, even in temperate climates, are pork, shell-fish, skate and ray, all of which are forbidden. Pork is also the source of the dreaded trichiniasis.

Every warm-blooded animal for Jewish consumption must be slaughtered in a specially prescribed manner. This consists in severing the carotid arteries and jugular veins in one swift cut with an extremely sharp knife. The action, which is painless, takes a fraction of a second, and the immediate substantial fall in blood pressure in the brain causes instantaneous unconsciousness. The rapid bleeding thus produced soon empties the larger blood vessels

and the animal is almost completely desanguinated. This is in compliance with the command, not to eat blood (Lev. 17, v. 12), but it is also of great sanitary importance in that it improves the keeping quality of the meat. Before cooking, any free blood in the tissues is removed by soaking each cut of meat in cold water, then salting it and again washing it.

The animal must be in a healthy condition, and before the meat can be declared as *kosher* (ritually fit), some of the major internal organs must be examined to exclude disease or injury. An animal that dies of itself is " unclean " and may not be eaten. (Lev. 11, vv. 39, 40 and Deut. 14, v. 21).

Another sphere where cleanliness plays an important part is sex hygiene. The practice of circumcision, which is one of the most fundamental of Jewish rites—the Abrahamic Covenant (Gen. 17, vv. 10f.)—is also of great value from the health point of view. There can be little doubt that it makes for cleanliness and that by preventing the accumulation of smegma and other harmful material under the prepuce it reduces the incidence of venereal and other infections ; but there is another far greater advantage. It seems to avoid the development of malignant disease, for there is no recorded case of cancer of the male organ in anyone who has been circumcised. The late Sir Ernest L. Kennaway, Director of the Chester Beatty Research Institute attached to the Royal Cancer Hospital, London, was of the opinion that smegma is a carcinogenic substance.

In the female especially are the laws of sex hygiene very strict, and here also it is possible to notice considerable advantages that have accrued because of their observance. A woman who is menstruating is regarded as " impure ", and she remains so for a further seven days, during the whole of which time sexual intercourse is forbidden. At the end of this time, which is a minimum of 12 days, the woman immerses herself in a ritual bath of natural water, (sea, river, spring or rain), after first having meticulously washed her body. This may not seem so very much higher than contemporary standards of cleanliness, but even a few decades ago, it was far in advance of common practice. In addition, the ritual immersion is an act of " purification ".

Thus for at least 12 days during each month there is freedom from extraneous irritation. This period of rest, coupled with the fact that when cohabitation does subsequently occur, the husband is a circumcised person so that no smegna is introduced, must be of some importance when considering the reasons for the much

lower incidence of carcinoma of the cervix among Jewish women. Miss Muriel E. Landau, a gynaecologist of wide experience, particularly among Jewish women, has informed the writer that she has never found cancer of the cervix in any Jewess who has complied with the Jewish ritual.

Until a few decades ago it was held by some that the most fertile time in the menstrual cycle was soon after the end of, or even during menstruation, i.e. during the aforementioned prohibited period, and that conception became less likely during the rest of the cycle. The fact that observant Jewesses are as prolific as other women has caused those experts to revise their views. Recent research has shown that ovulation occurs 14 days before the onset of menstruation, and as this is the time of maximum fertility, the textbooks have had to be re-written on this point.

The absence of cleanliness or purity in matters of sex often brings about those kinds of impurity or infection known as venereal diseases. Syphilis was not yet known in the Old World in Bible times, but gonorrhoea was apparently widespread. The beginning of chapter 15 of Leviticus, which obviously refers to this disease, is most instructive ; it reads as follows :

> " And the Lord spoke unto Moses and to Aaron, saying : Speak unto the children of Israel, and say unto them : When any man hath an issue out of his flesh, his issue is unclean. And this shall be his uncleanness in his issue : whether his flesh run with his issue, or his flesh be stopped from his issue, it is his uncleanness. Every bed whereon he that hath the issue lieth shall be unclean ; and everything whereon he sitteth shall be unclean. And whosoever toucheth his bed shall wash his clothes, and bathe himself in water, and be unclean until the even. And he that sitteth on any thing whereon he that hath the issue sat shall wash his clothes, and bathe himself in water, and be unclean until the even . . . . And the earthen vessel which he that hath the issue toucheth, shall be broken . . . ."

Could anything be more explicit ? Here are to be found :

(*a*) The basis of infection by contact ;

(*b*) The cleansing of contacts ;

and (*c*) The danger of absorption of infection by porous earthenware vessels (unglazed), e.g. chipped crockery.

The famous genito-urinary surgeon, Mr. Kenneth M. Walker, would begin his series of lectures on gonorrhoea to the students of St. Bartholomew's Hospital, London, by reading *in extenso* the opening verses of this chapter of Leviticus and stating that they

applied with full force even in present times.

Another infective disease which especially comes into the category of " impurity " is the " plague " of leprosy. This skin condition is described in chapter 13 of Leviticus, which goes into much detail as to the differential diagnosis from other skin eruptions, which are considered as " clean ", i.e. not impure or infectious. The Bible, however, is not a text book of medicine, and there is no attempt to indicate therapeutic treatment ; nevertheless the strictest measures are enjoined to ensure the isolation of the leper from the rest of the community, as is still the normal practice to-day. " He is unclean ; he shall dwell alone ; without the camp shall his dwelling be." (Lev. 13, v. 46).

A form of " impurity " of the highest degree is that of the dead body. Anyone coming in contact with or even being under the same roof as a corpse is " unclean " (Num. 19, vv. 11, 15, 16). The dead body as a source of severe infection is obvious, particularly in hot climates. The Jewish religious practice of early burial can also be regarded as a good sanitary rule.

Apart from those concerned with uncleanness or impurity, there are other laws and practices in Judaism that may be considered as educational from the health point of view. The prohibition of consanguinous and incestuous marriages (Lev. 18, vv. 6-20) bears an important relation to eugenics. The term " bastard " in Jewish law does not mean a child born out of wedlock, but is applied for the most part to the offspring of incestuous unions, so that again from the eugenic angle it is right that they should not be permitted to " enter into the assembly of the Lord ", i.e. to marry into the community (Deut. 23, v. 2).

One of the greatest boons to mankind was the institution of the weekly day of rest, the Sabbath (Fourth Commandment). It is impossible to exaggerate the enormous benefits to the health of the body and mind derived from this weekly cessation from work and toil.

In addition to all that has been detailed so far, there is a wealth of reference in the Bible and in rabbinic literature to medical and public health matters which is too extensive to be dealt with here, but which would be of great interest to the research student. For example, mention is made of certain diseases such as tuberculosis and malaria (Lev. 26, v. 16), and then there is the significant association of rat infestation with bubonic plague, " for one plague was on you all " (I Sam. 6, v. 4), although the fact that bubonic plague is caused by rats has only lately been established. Much

work on preventive measures for health was done by Moses Maimonides, a distinguished Rabbi and physician (1135-1204), who drew up comprehensive rules to preserve the bodily fitness of the individual, some of which have since been incorporated as advisory into the Jewish Code of Law.

From all this it is evident that the Jewish attitude to the art of healing has always been a positive one. There is no question of refusing to use medical remedies and relying entirely on prayer. Although the help of the Almighty is invoked, " For I am the Lord that healeth thee " (Ex. 15, v. 26), this is qualified by the instruction, " And he shall cause him to be thoroughly healed " (Ex. 21, v. 19), indicating that the services of a doctor should be utilised. In fact, it was considered wrong to reside in an area where there was no physician.

To sum up, then, Judaism, at the dawn of history, established a code of living, which was an anticipation of many of the health and hygiene measures subsequently adopted by the civilised world ; so that of Moses it may be said that he was not only the great lawgiver to Israel and to mankind, but that he, and through him the Jewish religion, may be regarded as among the earliest exponents of preventive medicine and public health.

CHRISTIANITY AND HEALTH EDUCATION

By A. J. DALZELL-WARD, M.R.C.S., L.R.C.P., D.P.H.,
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Our Western culture has three roots—in Greece, Rome and Israel. Institutions and scales of values are derived from these origins and it is common to confuse what is specifically Christian with that which remains to us from this wider background. Dr. Homa[1], in this series, has shown us how much we owe to Judaism and in this context we must remember that the Middle East culture in general, as revealed by Mr. Shiloh[2], shows certain attitudes to health which have a particular application to preventive medicine and health education.

This is one of the difficulties which confronts the author of an article on the contribution of Christianity to health education. Another is that the faith tends, more than others, to be identified or confused with social issues. As this is a series on religions, it is necessary to separate such issues from the main question, and to relate it entirely to the fundamental Christian doctrine as revealed in the life and teaching of Jesus.

Christianity itself has religious as well as historical roots in Judaism. Christians study the whole of the Bible. The Ten Commandments are the basis of a secular moral and legal code, and the prophecies of the Old Testament are adduced as evidence of the preparation of the world for the Advent of Jesus.

From the purely historical point of view, the "world" here means the Middle East, and particularly Israel. Up to the time of the Advent, health education and preventive medicine belong to Judaism. The Laws of Moses, with their remarkable anticipation of modern public health practice, seem to those with a religious faith to have been necessarily inspired by Divine Authority. Thus the Christian, as much as the Jew, must believe that Moses had

[1]Page 66.
[2]Health Education Journal, November, 1958, p. 232.

direct contact with God and received instructions from Him.

Just as the Laws of Moses have been confirmed by modern science, so also has the philosophy of Jesus, respecting the laws which govern interpersonal relationships, been confirmed by psychiatrists and social psychologists. It is in the sphere of mental health that Christianity has made its own contribution.

In order to appreciate this contribution it is necessary to understand the nature of Christianity. This is not a didactic moral and social code. It is a dynamic relationship with God to be achieved and maintained by personal effort which must be continuous throughout life. It is the primary aim of life, the achievement of which will bring in its train other secondary aims. Thus the Christian does not place his faith in secular organisations, but neither does he practise complete world denial, as is evident if the passage in St. Matthew, chapter 6, is read in full (v. 33) :

> " But seek ye first the Kingdom of God, and His righteousness ; and all these things shall be added unto you."

Our modern concepts of health run closely to this belief. It is now accepted that health is not an end in itself, but a means to achieving other ends (see Ministry of Education Pamphlet No. 31). The current description of health used by the World Health Organisation, but ascribed to Pericles, takes into account social and mental wellbeing, which of course cannot be achieved without the primary values of Goodness, Truth and Beauty.

Before the Advent of Jesus the Greeks had discovered that tne human mind was a powerful and precise instrument capable of abstract thought as well as of observation and discovery. A scheme of values was postulated in which the highest place was occupied by the three primary values. Direct pursuit of these would bring the profits of secondary values in its train, but direct pursuit of secondary values was unprofitable. Therefore, well-being depended upon behaviour and the choice made by the individual and, equally important, by the community.

From the Christian point of view, the Greek philosophers were handicapped by their ignorance of God, which in turn meant an ignorance of the nature of man. For the problems of behaviour they had no rational answer. Later the Romans, being possessed of an expertise in administration and legal codification, achieved a secular social justice of a kind. But this did nothing to relieve the harshness and cruelty of human relationships, which were not only outside the law but often fostered by law.

The Jewish people, however, believed in one God, and through

Moses knew God. It was into this society, having a culture Middle East in character as well as Jewish, that Jesus was born and conducted his ministry which is the foundation of the Church.

Three aspects of the Christian doctrine concerning the nature of Man apply to the present question :—

(1) Man was created in the image of God. Each individual, therefore, is of intrinsic worth, is known to God and is equal in God's sight.

(2) Man is inherently sinful. This is not a moral judgment, but a statement of fact. Man is as capable of evil actions as of good.

(3) Man is endowed with free will. He can make a choice between good and evil when faced with a problem.

If people believe this, then it is obvious that this belief will govern their relationships with others. They will also have insight into their own personalities and motivations. Because the Christian doctrine promises forgiveness of sins, provided there is true repentance, consciousness of personal unworthiness will not be devastating. On the contrary, it will be the stimulus which makes the person seek to revive his relationship with God. The application to mental health problems is obvious.

It might be argued that secular schools of psychotherapy have gone a long way to helping patients with neuroses and depressions arising from conflict. On the other hand, Flanagan[1] has pointed out that an equilibrium based only on the agreeable preoccupations of everyday life is precarious and that a coherent metaphysical or religious life is necessary. Self-esteem, says this psychiatrist, and self-regard are accepted as being among the normal requirements for living, but may lead to self-preoccupation and therefore increase anxiety. In the practice of Christianity, however, there is an urge towards preoccupation with God.

We can find all the evidence we need from the four Gospels, and of these St. Matthew makes the major contribution. The teaching of Jesus showed clearly that to commit a breach of personality of another is a sin, as in Matthew, chapter 5, v. 22. :

> " But I say into you That whosoever is angry with his brother without cause shall be in danger of the judgment : and whosoever shall say to his brother Raca shall be in danger of the Council : but whosoever shall say Thou Fool shall be in danger of hell fire."

This means that the personality (or soul) is the most important

[1]Flanagan, H. M. *Lancet*, 1956, 2, pp. 245-46.

part of man, which is the view taken by modern medicine and is the very basis of the psychosomatic concept of disease. Modern trends in treatment and the care of hospital patients show a preoccupation with the effect of treatment on personality, and all concerned are urged to try and put themselves in the patient's position.

We are also told that attacks on personality are relatively worse than attacks on the physical person (Matthew, chapter 10, v. 28) :

> " And fear not them which kill the body but are not able to kill the soul : but rather fear him which is able to destroy both body and soul in hell."

To-day we recognise the importance of love in interpersonal relationships, to whatever degree and in whatever form the love may be expressed. Bowlby and others have shown the importance of the capacity to effect stable relationships with others and how this is stimulated and nourished in parent-child relationships. We have also learned how rejection of love produces either profound depression and conflict, with ideas of guilt, or on the other hand aggression directed not only at the rejecting figure but at the community in general.

In the New Testament we have ample evidence that the teaching of Jesus anticipated these twentieth century concepts. In the first place, the value placed on the child's personality is high, particularly when we remember the social climate of the times, the excesses of Herod, and the disgruntlement of the disciples on the occasion recorded in Matthew, chapter 9, v. 14.

Wordsworth, who became a most important Christian philosopher when he wrote the *Ode on Intimations of Immortality*, must have been mindful of the incident described by St. Matthew (chapter 18, vv. 1-6). In reply to the question " Who is the greatest in the Kingdom of Heaven ?" Jesus " called a little child unto him and set him in the midst of them ". Later, the solemn warning was uttered which ought to have prevented the sickening episodes of history even down to our own times :—" But whoso shall offend one of these little ones which believe in me, it were better for him that a millstone be hanged about his neck and that he were drowned in the depth of the sea."

The Christian doctrine holds that interpersonal relationships generally should be regulated by love. Our twentieth century recognition of the criteria of emotional maturity which make this possible was anticipated by those famous passages in St. Matthew which are generally known as the Sermon on the Mount. We find also in Luke (chapter 7, vv. 36-48) that Jesus taught that motivation

determined by love could mitigate sins of a lower order. Rejection of love or the withholding of love are sins and will cause the offended party to sin in order to compensate for the breach of personality. Of the "woman of the city" Jesus said to the disapproving Simon :

> ". . . . . .Her sins which are many are forgiven for she hath loved much : but to whom little is forgiven the same loveth little."

We are reminded by this incident, and also by a passage in the Lord's Prayer, that we have a duty of forgiveness to our fellows. Forgiveness creates love, a fact which has been discovered by psychoanalysts.

Man's awareness of his inherently sinful nature is most acute in moments of mental disturbance, and can reach destructive levels. It was an agnostic, Freud, who discovered the value of catharsis produced by bringing guilt to the surface. This is a kind of confession which is an obligatory spiritual exercise for the practising Christian, no matter what form the confession will take.

For the Christian this act of confession is essential in order to preserve his relationship with God. It is more than the obtaining of a sensation of relief from guilt, and it is followed by a strengthening of resolution with which to face the challenges of life. There is no attempt to evade these challenges, for they are accepted as the normal drive which stimulates the individual to renew his relationship with God. We are now accepting the importance of challenge in the mental health field, and the concept of mental illness as an inability to tolerate normal anxieties runs very close to this Christian belief.

The Sermon on the Mount contains a guide to emotional maturity, particularly in the handling of aggression. Those who have been puzzled by the words "meek" and "poor in spirit" should study them again in the light of modern views of emotional security. Since the capacity to tolerate aggression is one of the criteria of a secure personality, meekness or poverty of spirit could mean that one remained calm and resolute in the face of aggression. More important, a "meek" person does not create anxiety in others and is therefore exercising a favourable effect upon community mental health.

Role-playing techniques, which are now so much in vogue in "human relations" courses, usually include an interview in which the trainees make a direct use of the principles contained in the words :

"Agree with thine adversary quickly whiles thou art in the way with him." (St. Matthew, chapter 5, v. 25.)

Modern health education characteristically avoids the didactic approach and, being concerned with changes of attitude, is interested in methods of stimulating insight. The teaching of Jesus is remarkable for its effectiveness in securing insight. It is mainly non-didactic, demanding full participation and discussion before the lessons contained can be understood. There are continual injunctions to look into one's own motives and to come to terms with them. St. Matthew records the injunction "Judge not that ye be not judged" (Matthew, chapter 7, v. 1.) and the truism ". . . That whosoever looketh on a woman to lust after her hath committed adultery in his own heart."

However, it is St. John who records the most remarkable case of change of attitude following the gaining of insight produced by a single stimulus :

> "He that is without sin among you, let him first cast a stone at her. And they which heard it, being convicted by their own conscience, went out one by one, beginning at the eldest, even unto the last." (St. John, chapter 8, vv. 7 and 9).

"No man is an island" wrote Donne, and to-day we recognise the importance of the community in the maintenance of the mental health of its individual members. Christianity fosters the community spirit and the Church provides a fellowship in which emotional needs of prestige and dignity, acceptance by a group and interdependence are provided. But there is special guidance for the most difficult relationships of all, which have the largest potential as a cause of mental ill health—relationships in which sex is involved.

Contrary to popular belief, Christianity does not devalue sex, nor does it deny its pleasure element. However, it recognises that sex in man involves emotional and spiritual relationships, and there is concern lest the expression of the sex instinct takes a form in which these relationships are damaged. Divorce is painful because of the breach of personality which is caused by the rejection of one partner. Others are also involved, including children, concerning whom the solemn warning has already been uttered. Since marriage is an institution in which emotional and spiritual relationships are fostered, it is believed that this is the proper setting for sexual activities.

Once again, modern observation has provided considerable justification for advice against pre-marital or extra-marital sexual

intercourse on emotional grounds and because of the effect upon sex life in marriage. The nature of man obtrudes wherever we investigate behaviour, and the need for affection in sexual relationships is seen to apply to the physical efficiency of such relationships. It is of interest to see that a new publication[1] on sex education draws attention to the need to associate sexual activity with love in the mind of the young. Once sex becomes aggression then it is a problem, but if it is an act of love it has a place only when there is someone to love.

Dr. Paul Tournier[2] deals with this matter adequately when he postulates four principal attitudes to sex : " devaluation ", where it is merely a physiological reflex ; " deifying ", which overestimates sexual love ; " contempt " which sees it as a degrading function. All these three are based on " non-fusion of carnal and spiritual love " which is productive of neurosis, but the fourth attitude, supported by the Biblical scriptures, is that spiritual and carnal love are fused. Tournier says of this : " It is the great answer—I might say the great remedy for all our patients' psychosexual troubles."

Although the lessons of Christianity have a direct bearing on mental health, they are also conducive to a mode of life of a modest and simple character which escapes the excesses that are nowadays claiming the attention of health educators. The word " escapes " is used deliberately because it is less a self-conscious restraint than an absence of the felt need for excess. Self-conscious restraint involves tension and conflict and is related to puritanism which is not the prerogative of Christianity alone. It also tends to produce a personality which incurs the charge of smugness. In the case of the practising Christian, however, there need be no self-consciousness at all and no denial of the basic needs of the worldly existence—moderation in appetite of all kinds is simply natural.

[1]Lerrigo and Southard : Heinemann Series on Sex Education, 1958.
[2]*A Doctor's Casebook in the Light of the Bible*. SCM Press, 1957.

HEALTH EDUCATION AND ISLAM

By KHALAFALLA BABIKER EL BEDRI, F.R.S.H., M.A.P.H.I.,
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Republic of the Sudan.

I HOPE I am not departing from the subject when I use the word "Islam" in place of the word "Mohammedanism" which was originally used when I was invited to contribute this article. In fact, the enlightened Muslim world does not refer to *this* religion as Mohammedanism. The Religion was referred to in the *Quran* as Islam. The closing verse of the *Quran* reads :

> "To-day is perfected for you your religion, and fulfilled upon you is my favour, and I pleased for you to have Islam for a religion." (ch. 5, v.3.)

Mohammed himself was neither God nor part of God. He was only a prophet—the last one of all prophets. The *Quran* says :

> "Mohammed is but an Apostle ; Apostles have passed away before his time ; what if he die or is killed, will ye retreat upon your heels ? he who retreats upon his heels does no harm to God at all ; but God will recompense the thankful." (ch. 3, v. 144).

Some of the authorities which refer to Islam as Mohammedanism hold the erroneous idea that Mohammed was the author of the *Quran*—an idea which is strongly refuted by all Muslims.

The sources of Islam

Islam has four foundations commonly referred to as *Usul* (roots) of Islam. These are :—

1. The *Quran*—the holy book.
2. The *Sunna* (custom). This is defined as the sayings and practices of Mohammed, the prophet—what Mohammed did and what he declared.

3. *Ijmaa*—unanimous consent of the *Ulama* (learned doctors of Muslim Law).
4. *Qiyas* (reasoning by analogy).

These four *Usul* (roots) constitute all the codes and modes of Muslims' life. Rules of peace and war, of business and commerce, of marriage and divorce and of all other aspects of life are to be found in the four sources. There is nothing in the other three sources which is inconsistent with the first source—the *Quran*—the master source.

The Muslims, in their early days, had their own discussion circles in which they used to negotiate their problems and their day-to-day affairs. Matters of sex, of relationships, of parenthood, of sickness and of health were discussed in the circles. Mohammed himself used to lead the discussion and to invite participation. Women very often came to the prophet in the presence of men and asked questions. Frank answers were always given. The Rules of Islam were not only to be learned, but to be practised as well.

Health problems of early days of Islam

With so simple and non-complicated a life in the early days of Islam, one would naturally expect to be faced only with relatively simple health problems. But the striking fact was that the response to major health problems (whenever they occur) was instructive and correct, as we shall see later on. Teaching in personal hygiene matters was particularly extensive, and is applicable even in our time.

Mohammed—The Educator

The qualities of Mohammed, the mode of his life, the merits on which he was *selected* to shoulder the great mission, and the way he shouldered it, are all examples of what an educator should be and of the proper approach to be made if such a great mission is to be brought to a successful end.

The pre-Islamic problem was one of ignorance and superstitions. Mohammed was sent to change a formidable attitude of a formidable nation from worshipping idols to worshipping the one God (Allah)—from polytheism to monotheism.

His selection *from amongst the people* for that great mission is, and should be, the guide for selecting any educator of great mission. The *Quran* says :—

> " He it is who sent unto the Gentiles a prophet *amongst* themselves to recite to them his signs and to purify them, and

to teach them the book and wisdom although they were before in obvious error." (ch. 62, v. 2.)

His patience, endurance, devotion and seriousness of purpose are amongst the required qualities for great missions and they dictate the pre-requisite for health educators amongst Muslims.

The instructions laid down to Mohammed in the *Quran* for carrying out his mission are the appropriate ones to be copied as guiding rules for any health educator. The *Quran* says :

" But warn thy clansmen who are near of kin."
(ch. 26, v. 214).

which is *setting the example*. We should not expect a successful health educator to start preaching to his neighbours the importance of keeping children clean, for example, when his own children are neglected. Setting the example is one of the prominent features of Islam.

The *Quran* suggests a lenient way of approach to induce the public to attend and listen to the mission—it says :

" It was by a sort of mercy from God thou didst deal gently with them, for hadst thou been rough and rude of heart they had dispersed from around. But pardon them and ask forgiveness for them and take counsel with them in the affair." (ch. 3, v. 159.)

There is no dogma in Islam in the strict sense of the word. Free discussion and consultation amongst those concerned is the rule set out in the *Quran* and it is the equivalent of the " participation " which is one of the advanced achievements in the health education method to-day. In this respect the *Quran* says :

" And take counsel with them in the affair." (ch. 3, v.159.)

The above, and many many other rules which are quoted from the *Quran* and can be found in other sources of Islam, set a pattern for selecting a health educator and set out the broad rules which the educator should follow—setting the example, leniency and discussion and consultation in the affair.

Secularity in Islam

It was mentioned earlier that the simple life of the early Moslems gave no major health problems to be tackled. Let us now examine some of the problems and see how Islam approaches these problems, and let us mention here that Islam, with all its four sources and recognised schools, is fit for all times. Muslims are proud to see that the principles set out by Islam do fit *now* in the world of atomic energy. The *Quran* permits (even orders) the

parents of to-day to send their boys to study techniques and methods of using atomic energy as being the "conventional" weapon of the day. This is found in the explanation of the following verse of *Quran* :

> "Prepare ye against them *what force* and companies of horse ye can, to make the enemies of God and your enemies, and others beside them, *in dread thereof*." (ch. 7, v. 60.)

Approach to sex education in Islam

In studying health education, one feels that the immediate need of the individual in any community is to know something about himself or herself—what was he or she ? and how did he or she come into this world ?—some elementary biology, particularly human biology. The writer has seen many young audiences, both in England and in the Sudan, who were completely absorbed when being lectured on this subject. Is there any reference in Islam to this matter ? Let me take one source, the strongest source of Islam, and quote from the *Quran* :

> "Was he not a clot of emitted seed ? then he was a congealed blood, and (God) created him, and fashioned him, and made of him pairs, male and female". (ch. 75, vv. 37-39.)

(In fact the Arabic text in *Quran* is much more precise than the translation). This can be taken as an item of sex education incorporated in human biology, which is one of the recognised techniques in giving sex education at school to-day.

In another verse the *Quran* says :

> "Then let man look from what he is created : he is created from water poured forth, that comes out from between the loins and the breast bones". (ch. 86, vv. 5-7.)

Islam, in its various sources, has dealt with delicate problems in a way which can be a good guide to sex educators of to-day.

Talks on menstruation and sex are found both in the *Quran* and in *Hadith* (= a narrative of cominique. Term used to indicate the authoritative collection of traditions of what Mohammed did or *said*). One verse of the *Quran* says, about menstruation :

> "They will ask thee about menstruation ; say : it is a hurt. So keep apart from women in their menstruation, and go not near them till they be cleansed ; but when they are cleansed come in to them by where God had ordered you ; verily, God loves those who turn to him, and those who keep themselves clean." (ch. 2, v. 222.)

By "go not near to them" is meant "do not have sexual inter-

course."

The following *Hadith* has a special significance. It has been related by Asha, one of Mohammed's wives, " that a man came to the prophet and enquired in the presence of Asha. How does it happen that a man practises with his wife sexual intercourse without being able to emit ?" Mohammed replied : " Yes, it happens to me with this (pointing to Asha) and we then wash." It is evident that the man was greatly worried and thought that he was suffering from some shameful disease of a secret nature that might be affecting his status as a man. In the prophet's reply he found what to-day would be termed group therapy. He found satisfaction that he was not the only man to suffer from this defect. Furthermore, he understood that such abnormal intercourse must, like the normal one, be followed by a wash. The psychological group therapy is for both sexes.

Approach to personal hygiene in Islam.

It was mentioned earlier that the health education content in matters of personal hygiene was extensive. To detect some of these items, we may refer to what is known in Islam as *Sunun El Fitra* (customs or habits of instinct). They were given this name to indicate that these personal habits are instinctively inborn in a Muslim, and their practice is *Sunna* as defined above. The *Hadith* says :

" Ten are amongst the habits of instinct. They are :

1. Trimming of moustaches.
2. Cutting the beard short in length and breadth—*leaving the remainder to grow.*
3. Cleaning the teeth by brushing.
4. Cleaning the nostrils.
5. Trimming the nails.
6. Washing the finger joints.
7. Removing hair from arm-pits.
8. Shaving pubic hair.
9. Washing after defaecation or urination.
10. Circumcision. (Some authorities quote rinsing the mouth in place of circumcision.)

Every one of the above is supported by a number of *Hadiths*. Cleaning of teeth, as part of dental hygiene was repeatedly stressed in Islam. Mohammed said : " Had I not feared the hardships which may be encountered by my nation, I would have ordered tooth brushing prior to every prayer " ; i.e. five times a day. Now

many Muslims practise this.

The technique of *Wadu* (ablutions performed before prayers) itself constitutes cleanliness—it is performed five times a day. The technique includes washing the hands, rinsing the mouth, washing the nostrils, face, forearms, ears and feet. Only clean water is to be used according to religion.

Other important *Hadiths* which have a bearing on health education are quoted below :

Mohammed said " We (he means the Muslims) are people who do not eat unless we are really hungry and when we do eat we do not fill our stomachs." Islam also advised thorough mastication of food.

Mohammed said (quoted by Abu Huraira, one of Mohammed's companions) " If a dog drinks in your vessel, pour down what he drank from and wash the vessel seven times."

No pollutions, no adulteration

Mohammed said " I warn you of the three curses : defæcation in water courses, in public roads and in shades " (probably shades of trees where people are likely to take rest).

Other Islamic rules forbidding adulteration of milk are made by Omer (second Khalifa). In fact there is one very important *Hadith* which makes those who cheat (in word or deed) far from Islam. The *Hadith* reads : " He who cheats us is not from us ". This is similar to excommunication in Christianity. An influential Muslim health educator can use this *Hadith* amongst Muslim traders to stop adulteration of any kind. In fact, I tried it with success amongst some milk sellers in Omdurman.

Control measures in Islam

It remains to mention the attitude of Islam in times of epidemics. Some authorities speak of Muslims as people who believe in nothing but fate. They illustrate the average Muslim as a man who is not prepared to accept reasoning. In fact, this is incorrect. The *Quran* orders the Muslims to take precautions. It says :

> " Expend in alms in God's way and be not cast by your own hands into perdition ; but do good, for God loves those who do good." (ch. 2, v. 195).

The story is told of a man who came to visit Mohammed. The man was riding a camel and on seeing the prophet he left his camel on its own and ran to shake hands with the prophet. Mohammed then asked the man to go back and tie the camel properly. The

Schoolboys performing *Wadu* (ablutions) prior to their noon prayers.

A section of schoolboys performing *Wadu*.

man said, " No. I relied on God." The prophet said " Tie your camel and *then* rely on God ". This shows that the idea that Muslims believe in nothing but fate is untrue.

It is recorded that Saidna Omer (Mohammed's second successor) had come to hear news of an epidemic of plague (this may have been any fatal disease of an epidemic nature) in a certain locality, where a conference was about to be held. He at once sent his orders that " No one is allowed to leave the infected area and no one is allowed to enter ". This strict order has since been taken as a guiding principle during epidemics. It forms the basis of quarantining as known to-day.

Mental health in Islam

Islam, literally, means surrender or submission. To the Muslims, this submission is " welfare in this world and salvation in the next ". With this understanding of the spirit of Islam, you often find a genuine Muslim cheerful and full of confidence in the outcome of his struggle. He is, to quote the English poet, " Serene alike in peace and danger ". He is neither inflated by triumph nor broken by defeat. His duty is to struggle and struggle and, to quote a *Hadith* of the prophet, " Do for your world as if you are going to live for ever and do for the world to come as if you are going to die to-morrow ".

The extent of the attention given to social security in Islam is much wider than can be covered here. Islam legislated for bringing up the child in an atmosphere of love and care, for giving him education to face the world, for looking after the aged in a merciful way, for giving support and help to relatives, " without which help the doctor's work is of little avail " (Hippocrates), and for the maintenance of good human relations by " the acceptance of people no matter who or what they are ".

The following verses from the *Quran* may help to cast light on the subjects covered :

> " But give good tidings to the patient, who when there falls on them a calamity say, Verily, we are God's and, verily, to Him do we return." (ch. 2, v. 156).
>
> " . . . All save those who pray, who remain at their prayers, and in whose wealth is a reasonable due (set aside) for him who asks and him who is kept from asking, and those who believe in a day of judgement, and those who shrink in terror from the torment of their Lord ; " (ch. 70, vv. 23-27).
>
> " Thy Lord has decreed that ye shall not serve other than

Him ; and kindness to one's parents, whether one or both of them reach old age with thee ; and say not to them, ' Fie ' and do not grumble at them, but speak to them a generous speech." (ch. 17, v. 23).

" Alms are only for the poor and needy, and those who work for them, and those whose hearts are reconciled, and those in captivity, and those in debt, and those who are on God's path, and for the wayfarer ; an ordinance this from God, for God is knowing, wise." (ch. 9, v. 60).

" . . . But as for the orphan oppress him not ; and as for the beggar drive him not away ; and as for the favour of thy Lord discourse thereof." (ch. 93, vv. 9-11).

" And those who avoid great sins *and abominations*, and who when they are wroth forgive, and who assent to their Lord, and are steadfast in prayer, and whose affairs go by counsel amongst themselves, *and who of what we have bestowed on them give alms*, and who, when wrong befalls them, help themselves." (ch. 42, vv. 37-38).

Conclusion

Islam, with its four sources, is rich in health education content. The true Islamic culture never fails to answer the problems of the day. Like any other organised religion, Islam can assume an ethical function. You often meet Muslims who may not be able to give you an answer in a certain problem but they can answer you indirectly from the *Quran* : " Ask ye the people of the Scripture if you do not know " (ch. 21, v. 7) ", which shows that Islam admits and respects specialities. Some religions object to the process of secularisation as obscuring the mission of the Church. Islam, on the other hand is practical in this respect, and we have seen in a previous paragraph how it orders parents to send their sons to study even atomic energy.

It may be noticed in this article that the references are mainly drawn from the *Quran* and *Hadith*—the strongest two references and the most certain ones of all sources. The writer is convinced that a health educator who practises his mission in a Muslim community is sure to attain a high degree of success so long as he himself is selected from amongst the people (as Mohammed was) ; has the fine qualities of Mohammed—patience, devotion, endurance and seriousness of purpose ; and makes the approach which Mohammed made—setting a good example, being lenient with the people respecting their feelings, and consulting them in the

affairs.

In my own country, the history of health education records some important victories for the Islamic approach. One of these was in bilharzia control, when the grand Mufti (the highest official authority in Islam) of the Sudan made a *Fatwa* (legal opinion) quoting verses of the *Quran* and important *Hadith* showing the illegality of urinating and defæcating in water courses.

Again, the Orthodox opinion which supports circumcision of girls in the Sudan has no legal support from Islam, while one *Hadith* at least is clearly against the exaggerated way in which the operation is being practised in the country.

Finally, the writer very sincerely hopes that if this article fails to satisfy the reader of the rich content of health education in Islam, the failure is to be attributed to the writer's scanty knowledge of Islam and/or health education and not to Islam or Islamic culture.

References

1. *Quran* (Arabic)—Numbers of chapters and verses taken from Arabic copy.
2. E. H. Palmer. *Quran*, English Translation.
3. L. Bevan Jones. *The People of the Mosque*.
4. W. F. Ogburn and M. F. Nimkoff. *A Hand-book of Sociology*.
5. Mohammed Ibn Ali Ibn Mohammed El Shaw-Kani. *Nayal El Awtar* (= Achievement of purposes).
6. R. F. Tredgold—*R. S. H. Journal* Vol. 78 No. 4, July—August, 1958.
7. W.H.O. Technical Report Series No. 89 Expert Committee on Health Education of the Public—First Report.
8. Majid Khadduri. *War and Peace in the Law of Islam*.
9. Kh.B. El Bedri—Report of Proceedings C.C.H.E. Summer School, 1957, North Wales.

The writer wishes to record his thanks to Sayed Ahmed Ibrahim Idris, Principal, School of Hygiene, Khartoum, for helping in collecting the translations of verses.

BOOKS

CLINICAL INVOLVEMENTS OF—THE OLD FIRM, by H. Gardiner-Hill. (Butterworths. 1958. Pp. 200. Price 32s. 6d.)

Although it is a just claim that British clinical teaching leads the world, the textbooks with which medical students have had to supplement their studies in wards and out-patients have not the same stimulating qualities. This is not an indictment of authors or publishers—it is merely because clinical medicine does not lend itself to formal presentation and the generalisations which are inevitably repeated in edition after edition.

Dr. Gardiner-Hill and his publisher have broken away from the conventional systematic textbook. Here is the problem centred approach to teaching—always met with at the bedside—but now available in the printed word. The author himself describes this work as a series of running commentaries on cases seen with his "Firm". The commentaries were dictated immediately after the round and they are partly the product of discussion between the students and their teacher. The title derives from the approach made by the "Firm" to each case—"What system is involved?", "What level is it involved at?" and "What is the nature of the involvement?".

There are so many things which make this book unique, that it is difficult to select the most striking. The first 33 pages, dealing with the acquisition of clinical sense, show clearly that medical practice is governed by well-defined intellectual rules and, as a corollary, so is medical teaching. The system on which the whole book is based provides a new classification on a functional basis which will enable the student to reason out his clinical problems, as opposed to memorising passages or pages of a conventional textbook. As a result, the author has achieved a remarkable integration of anatomy, physiology and pathology, as well as the purely clinical and social aspects. As the approach is essentially problem centred, generalisations are left to the student, but we can imagine that any student who had been taught in this fashion would be cautious in forming generalisations!

A good example of this approach is the series of cases illustrating variables of chest pains and what they mean. Seven patients, over a period of three months, come to the hospital complaining of chest pain. The pathological causes of this single symptom ranged from coronary thrombosis to cycling home against a head wind. In the discussions on these cases it was concluded that most chest pains from viscera arose from muscular organs—heart, diaphragm, oesophagus—or from serous membranes. Other pains arose from skeletal structures—muscles and their sheaths and the bones. Chest pain of skeletal origin was likely to arise after the particular use of muscles under adverse circumstances. Visceral pain, however, was noticeably intermittent and related in time to the function of these organs—to exertion, for example, rather than the use of certain muscles. Here we see clearly the use of inductive processes in learning and teaching.

The author has a good deal to say on the effecting of communication with patients and has some useful hints on overcoming or avoiding resistances. There are two groups of resistant patients—those who are clearly resistant on arrival, generally due to bad "conditioning" to the profession in the past—and those whose resistance is raised because of faulty technique in approach. In the section on difficult consultations, the significance of family relationships and social factors is clearly demonstrated.

Another important feature of this book is that social and psychological factors are studied when they arise and not as an afterthought. In general, this work is the answer to those critics of medical teaching who either allege that doctors cannot teach at all or that the undergraduate is not introduced to the social and psychological factors in disease. It should have a wider readership than that of the undergraduate however—all doctors, whatever their chosen field of work, should read it for enjoyment and profit, while educationists might set aside the medical

technicalities for the sake of finding out how a teacher of medicine sets about his task.

The enjoyment of the book is enhanced by a lightness of style and the innumerable and amusing little line drawings scattered about the text.

A. J. DALZELL-WARD.

HEALTH YEARBOOK 1957, compiled by Oliver E. Byrd. (Stanford University Press. London: Oxford University Press. 1958. Pp. 278. Price 45s.)

At the present time the busy practitioner must consider the time available for reading a precious commodity, and it is pleasant to find in the *Health Yearbook* material which is both entertaining and stimulating from the medical point of view.

Once again the editor, Dr. Byrd, has screened some 2,000 articles which appeared in 1957, in a large number of health and other periodicals, and it is interesting to note that, as in past years, the *Journal of the American Medical Association* led all other periodicals as a source of selections. All but a few are of American origin and it is disappointing that of the four British items the only extract from a British Medical Journal deals with the important though uninspiring subject of trichophyton rubrum infection in families.

The articles selected cover a wide range of subjects, from health education amongst the Zulus to an illuminating analysis of the net earnings of physicians in the U.S.A., which may prompt some of their British counterparts to pack their bags.

In the section dealing with trends and possibilities, it is comforting to read that American public health problems are similar to our own and that considerable emphasis is placed by the American Public Health Association upon the need for programmes designed to reduce the impact of chronic illness upon older people. The importance of accident prevention programmes, both at home and in industry, and the need for long-term studies of the health effects of radiation are also stressed. In this connection it is significant that in November 1957, the U.S. Public Health Service recommended that the mass x-ray method of finding tuberculosis cases be discontinued except in "high risk" groups.

The zeal with which American workers pursue enquiries into the social habits of individuals is in evidence in the section dealing with "habit-forming substances". It is reported that an investigation of the religious background of 50 male patients admitted to hospital for the treatment of alcoholism indicated that more parents of alcoholics were church goers than the parents of a non-alcoholic group—a further investigation into cause and effect is surely necessary here!

In the field of mental health and disease the isolation of a protein substance Taraxein from the blood serum of schizophrenic patients is reported and, although the investigators point out that it is unwise to draw any sweeping conclusions, it is tentatively suggested that in schizophrenic patients an inability to detoxify this substance may be the basis for the onset of schizophrenia.

The pre-occupation of Western civilisation with the problem of coronary artery disease is given due recognition in this book, and it is comforting to read that the improved prognosis has prompted some insurance companies to offer some types of rated life insurance to the most favourable cases from one to five years after recovery from such an illness.

The *Health Yearbook* is an interesting and stimulating book of wide scope which must interest everyone concerned in any way with the promotion of health.

D. M. RICHARDSON.

ORTHOPAEDICS IN GENERAL PRACTICE, by W. H. Gervis. (Heinemann Medical Books. 1958. Pp. 120. Price 10s. 6d.)

The author states in his preface that "this book is an attempt to show that a very high proportion of the painful conditions that patients call rheumatism are not a disease at all, but are the results of bad posture, misuse and bad maintenance of that wonderful machine, the human body". The author is one of the fast-vanishing tribe of G.P.'s who after working on the staff of their local hospital, specialise and attain full consultant status, in this case as an orthopaedic surgeon. One can therefore be assured that what Mr. Gervis

writes is the outcome of practical experience rather than an academic treatise, and one would like to be able to recommend it wholeheartedly since its theme is so important and so much neglected. It is difficult however, to see quite who is to benefit from such a book, since it is written at a somewhat elementary level—too elementary for the physiotherapist, and not sufficiently accurate for the general practitioner. The orthopaedic disorders which do not require surgery have in recent years been extensively investigated and documented by the specialty of physical medicine—or orthopaedic medicine as some of its practitioners prefer to call it—and the present book cannot be said to add greatly to the subject, or to take cognisance of this recent work.

Much of the book is in note form, loosely held together by the author's general thesis of the importance of posture. Brief sections on physical education and health propaganda are at such an elementary level as to be of little value to workers in these fields. The person most likely to benefit from the author's numerous clinical "tips" is perhaps the physical medicine specialist or the orthopaedic surgeon, who can sift out the personal bias and gain benefit from the mature clinical experience of an orthopaedic surgeon whose knowledge has clearly come to him from day-to-day clinical practice over many years.

WILFRED BARLOW.

HOUSEWIFE BABY BOOK, by Anne Cuthbert. (Hulton Press. 3rd ed. 1958. Pp. 159. Price 5s.)

There are many books written these days for mothers about the care of their children. Most of them are attractively produced, well written and reasonably cheap. Mrs. Cuthbert's book has all these qualities, but has the added advantage that she herself is a mother and grandmother as well as a health visitor, and she is able to see difficulties through the mothers' eyes.

The book is divided roughly into three parts—advice to the expectant mother, to the mother of a young baby and to the mother of an older child. The usual subjects are covered, but each chapter starts with a general discussion and is followed by a section "for reference". This makes for easy reading, and indeed the personal touches and common sense approach make it a book that parents will read for enjoyment as well as consult in times of trouble. Moreover, it is a book that will give parents confidence in themselves so that they feel will able to heed the author's warning: "Do not let anyone, however skilled, persuade you to do something (or refrain from doing something) with your child against your own better judgement."

M. I. HENDRIE.

WOMAN'S CHANGE OF LIFE, by Isabel Hutton. (Heinemann Medical Books. 1958. Pp. 124. Price 6s.)

Dr. Isabel Hutton is a very experienced woman doctor and her book will be welcomed by intelligent educated women who are approaching the menopause. It is sympathetically written and delightfully easy to read. It distinguishes clearly between the emotional and physical disorders which are due to menopausal endocrine disturbances and other symptoms which might be a warning of more serious pathological conditions. It does fulfill its function, which is to reassure where reassurance is justified and to persuade women to seek medical advice where this is necessary.

It is not a very useful book for the ordinary hardworking wage earner or housewife. Although their problems are discussed and simple remedies suggested, such women will be apt, just because they are menopausal, to pick out advice intended for wealthier or more leisured women and feel, bitterly, that the writer does not understand their problems.

The inclusion in the section on "Melancholia" of the sentence "If given the opportunity she may try to put an end to her life" seems to me a mistake. Menopausal women do feel dreadfully depressed and the emphasis in such a book should surely be laid on the fact that these moods of depression pass. They are transitory. I feel so strongly about the power of suggestion, especially in emotionally disturbed women, that I hesitate to recommend this book as heartily as I should otherwise like to do.

MARY MACAULAY.

CLASSROOM DISPLAY MATERIAL : Aids to Preparation, Display and Storage, by Alan Vincent. (National Committee for Visual Aids in Education. 1959. Pp. 36. Illus. Price 1s. 6d.)

This booklet is full of practical suggestions and recommendations for the teacher in school or the lecturer who needs to make visual displays. The advantages or disadvantages of each method are presented clearly, showing the experience of the classroom teacher, rather than of the academic collector. Now that it is necessary to produce first-class visual material for the classroom, it is encouraging to read a booklet that has collected most methods together and that describes equipment that can give first-class results with little skill but care, patience and time. The author deals with the storage of these aids in the last chapter. It is to be hoped that adequate provision for this will be made in future schools, and that out-of-date visual aids will be destroyed after their effective life, and not retained by the sentimental hoarders.

D. L. PORTER.

EVALUATION TECHNIQUES FOR CLASSROOM TEACHERS, by Denis Baron and Harold W. Bernard. (McGraw-Hill. 1958. Pp. 297. Price 43s.

This American book in the McGraw-Hill Series in Education will do much towards helping teachers to successfully use and understand tests and measurements in schools. Aggression, reluctance or awe may be aroused by the mention of tests, measurements or "evaluation" in school in this country. After reading this book perhaps much of this will disappear as the authors consider very fully the difficulties, merits or dangers of testing. The treatment is not too "scientific" or filled with needless jargon, although it remains complete, up-to-date and interesting. The chapters have excellent discussion points and questions, summaries and bibliographies. Much is done in this book to remind many teachers that there are general principles upon which tests may be scientifically based, that many have a real use, and that it is part of the teacher's task, if not duty, to understand and appreciate their application, construction and evaluation. *Evaluation Techniques for Classroom Teachers* will start a widening interest in the whole subject and keep it in a clear and right perspective.

D. L. PORTER.

EDUCATIONAL RESEARCH Vol. 1, No. 1, November, 1958. (Newnes Educational Publishing Co. Ltd., for The National Foundation for Educational Research. 3 issues yearly. Pp. approx. 80. Price 5s. 6d. per issue).

The mass of educational research carried out in the last ten years has left many teachers, administrators and school health workers unconcerned and largely uninterested. This may be because of the volumes available, or because research workers are not necessarily exponents of plain words, or because of the sometimes needless jargon of the trade. Little research work with its conclusions has ever been "translated" so that teachers, or the public, may see its significance. This situation will now be changed.

In the first number of *Educational Research* Dr. Wall, the editor, has selected and presented some first class material in a very readable form, which will be meaningful and helpful to all concerned with education.

Professor P. E. Vernon writes upon intelligence testing, the nature of intelligence, the effect of environment and the accuracy of selection at 11 plus.

Dr. J. M. Morris writes the first of a series on teaching children to read, giving realistic assistance to the teacher having these common problems in school. The editor has selected the problem of "the wish to learn" for his excellent contribution.

In this journal it would appear that many of the professional and lay problems and interests in education will be brought into the open where we may all share the new conclusions, or be stimulated to try or challenge them.

D. L. PORTER.

WOMANHOOD, by Margaret Moore White. (Delisle. 1958. Pp. 144. Price 10s.)

The author has succeeded brilliantly in producing a comprehensive guide to health problems arising from sex, marriage, pregnancy and the late effects of childbirth. The range of interest is concerned with the reproductive phase of womanhood and extends from the first signs of puberty until the end of the menopause, and the book ends on a hopeful note of reassurance that life has not come to an end with the cessation of reproductive capacity.

The relevant anatomy and physiology is described simply with the aid of excellent drawings, the work of Dr. Mary D. G. Jones. There is a frank but sympathetic treatment of personal problems which may arise in and out of marriage, and there is helpful explanation of the difficulties which may be encountered between the husband and wife. Chapters on birth control, on the hygiene of pregnancy and on childbirth are included. Readers should be able to dispel the fears arising from the numerous vulgar errors concerning gynaecological disorders after perusing the chapters which deal with disorders of menstruation, uterine displacements, new growths and inflammatory conditions, and the methods of treatment in current use.

Altogether a valuable book which should be studied by married couples together if possible.

A. J. DALZELL-WARD.

FILMSTRIPS

DANGEROUS DROPLETS. (Produced and distributed by Camera Talks in co-operation with The Paper Hygiene Service. Colour. 38 frames. Price £2 2s.)

Measles, whooping cough, scarlet fever, and mumps are illustrated with excellent coloured pictures in this strip. The symptoms and the nursing to avoid complications, which are shown by diagrams, are explained. The importance of plenty of liquids, good and attractive meals, precautions to avoid the spread of infection and the reassurance of the child are emphasised. This filmstrip will be useful in parentcraft and mothercraft classes as it clearly illustrates the need for competent nursing for a sick child. It could be used as the basis of a talk, or to stimulate group discussion.

D. L. PORTER.

THE PROBLEM OF LUNG CANCER—To smoke or not to smoke. (Produced and distributed by Camera Talks with the National Association for the Prevention of Tuberculosis, and the Public Health Department, Croydon. Colour. 34 frames. Price £2 12s.)

One of the problems of lung cancer is to present the facts as now known to teenagers, or any potential smoking group. This filmstrip is the first in the field, and is directed to the teenage group. Statistics and some modern research are illustrated, as are "some reasons for smoking" and "some methods for giving up smoking." Teenagers will not be very impressed by these, or the numerous photographs to be found in the strip. Perhaps "sticking to the facts" would produce a more convincing illustration for a talk or discussion. Here part of the strip could be used successfully.

D. L. PORTER.

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